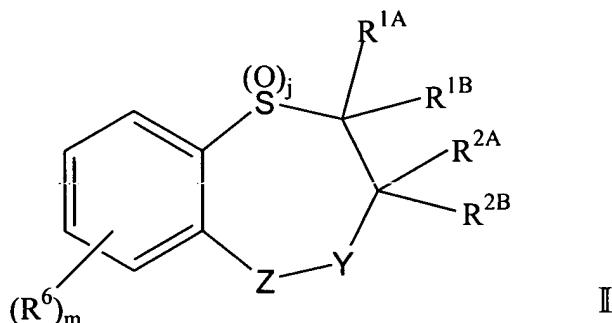


This Listing of Claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Currently Amended) A compound of Formula I:



wherein:

j is 0, 1 or 2; and

m is 0, 1, 2, 3 or 4; and

R^{1A} and R^{1B} are independently selected from hydrogen and alkyl; and

R^{2A} and R^{2B} are independently selected from hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, aryl and aralkyl; or

R^{2A} and R^{2B} together with the carbon atom to which they are attached form a C₃₋₁₀ cycloalkyl group; and

one of Z and Y is NR³ and the other of Z and Y is CHR⁴;

wherein R³ and R⁴ are independently selected from the group consisting of hydrogen, acyl, thioacyl, and R⁵; and

wherein R⁵ is selected from the group consisting of alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; -OR⁹; -SR⁹; -S(O)R⁹; -SO₂R⁹; and -SO₃R⁹;

wherein the R⁵ alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; and quaternary heterocyclyl radical is substituted with one or more radicals independently selected from the

group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; and -N⁺R¹³R¹⁴R¹⁵A⁻; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R⁵ radical optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A⁻; -P(O)R⁷R⁸; -PR⁷R⁸; -P⁺R⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R⁵ radical optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R⁹; and R¹⁰ are independently selected from R^w and carboxyalkylheterocycle;

wherein, and R^w is are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylammoniumalkyl alkylaminoalkyl;

arylalkyl; heterocyclalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -N⁺R⁹R¹¹R¹²A⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO

$3R^{16}$; $-CO_2R^{16}$; $-CONR^9R^{10}$; $-SO_2NR^9R^{10}$; $-PO(OR^{16})OR^{17}$; $-PR^9R^{10}$; $-P^+R^9R^{10}R^{11}A^-$; $S^+R^9R^{10}A^-$; and carbohydrate residue;

wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with $N^+R^9R^{11}R^{12}A^-$; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by $-O-$; $-NR^9-$; $-N^+R^9R^{10}A^-$; $-S-$; $-SO-$; $-SO_2-$; $-S^+R^9A^-$; $-PR^9-$; $-P^+R^9R^{10}A^-$; $-P(O)R^9-$; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R^{16} and R^{17} are independently selected from the group consisting of R^9 and M ; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

one or more R^6 radicals are independently selected from the group consisting of R^5 , hydrogen; halogen; $-CN$; $-NO_2$; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy; $-OR^{13}$; $-NR^{13}R^{14}$; $-SR^{13}$; $-S(O)R^{13}$; $-S(O)2R^{13}$; $-SO_3R^{13}$; $-S^+R^{13}R^{14}A^-$; $-NR^{13}OR^{14}$; $-NR^{13}NR^{14}R^{15}$; $-CO_2R^{13}$; $-OM$; $-SO_2OM$; $-SO_2NR^{13}R^{14}$; $-NR^{14}C(O)R^{13}$; $-C(O)NR^{13}R^{14}$; $-C(O)OM$; $-COR^{13}$; $-OR^{18}$; $-S(O)NR^{13}R^{14}$; $-NR^{13}R^{18}$; $-NR^{18}OR^{14}$; $-N^+R^{13}R^{14}R^{15}A^-$; $-PR^{13}R^{14}$; $-P(O)R^{13}R^{14}$; $-P^+R^{13}R^{14}R^{15}A^-$; amino acid residue; peptide residue; polypeptide residue; and carbohydrate residue;

wherein the R^6 alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy radicals optionally may be further substituted with one or more radicals selected from the group consisting of halogen; $-CN$;

-OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA⁻; -N⁺R⁹R¹¹R¹²A⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹¹R¹²A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue; and

wherein the R⁶ quaternary heterocyclyl radical optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; -NO₂; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -P(O)R¹³R¹⁴; ~~-P⁺R¹³R¹⁴~~; ~~-PR¹³R¹⁴~~; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; -N⁺R¹³R¹⁴R¹⁵A⁻; and carbohydrate residue; and

wherein the R⁶ radicals comprising carbon optionally may have one or more carbons replaced by -O-; -NR¹³-; -N⁺R¹³R¹⁴A⁻; -S-; -SO-; -SO₂-; -S⁺R¹³A⁻; -PR¹³-; -P(O)R¹³-; -PR¹³R¹⁴; -P⁺R¹³R¹⁴A⁻; phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; polyether; or polyalkyl; wherein said phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; and polyalkyl optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; or -P(O)R⁹-; and

wherein R¹⁸ is selected from the group consisting of alkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclylalkoxy carbonyl; and

wherein the R¹⁸ alkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclylalkoxy carbonyl radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; NO₂; -OR⁹; -NR⁹R¹⁰; -N⁺R⁹R¹¹R¹²A⁻; -

SR^9 ; $-\text{S}(\text{O})\text{R}^9$; $-\text{SO}_2\text{R}^9$; $-\text{SO}_3\text{R}^9$; $-\text{CO}_2\text{R}^9$; $-\text{CONR}^9\text{R}^{10}$; $-\text{SO}_2\text{OM}$; $-\text{SO}_2\text{NR}^9\text{R}^{10}$; $-\text{PR}^9\text{R}^{10}$; $-\text{P}(\text{OR}^{13})\text{OR}^{14}$; $-\text{PO}(\text{OR}^{16})\text{OR}^{17}$; and $-\text{C}(\text{O})\text{OM}$; or

a pharmaceutically acceptable salt or solvate thereof;

provided that at least one of R^3 , R^4 and R^6 is R^5 ; and

provided that at least one of the following conditions is satisfied:

(a) the R⁵ moiety possesses an overall positive charge;

(b) the R⁵ moiety comprises a quaternary ammonium group or a quaternary amine salt;

(c) the R⁵ moiety comprises a phosphonic acid group or at least two carboxyl groups; or

(d) the R⁵ moiety comprises a polyethylene glycol group having a molecular weight of at

least 1000.

2. (Currently Amended) A compound of Claim 1 wherein R⁵ is aryl substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; and -N⁺R¹³R¹⁴R¹⁵A⁻; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R⁵ aryl optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -

$\text{S}(\text{O})\text{R}^7$; $-\text{SO}_2\text{R}^7$; $-\text{SO}_3\text{R}^7$; $-\text{CO}_2\text{R}^7$; $-\text{CONR}^7\text{R}^8$; $-\text{N}^+\text{R}^7\text{R}^8\text{R}^9\text{A}^-$; $-\text{P}(\text{O})\text{R}^7\text{R}^8$; $-\text{PR}^7\text{R}^8$; $-\text{P}^+\text{R}^7$
 $\text{R}^8\text{R}^9\text{A}^-$; and $-\text{P}(\text{O})(\text{OR}^7)\text{OR}^8$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^5 aryl optionally may have one or more carbons replaced by $-\text{O}-$; $-\text{NR}^7-$; $-\text{N}^+\text{R}^7\text{R}^8\text{A}^-$; $-\text{S}-$; $-\text{SO}-$; $-\text{SO}_2-$; $-\text{S}^+\text{R}^7\text{A}^-$; $-\text{PR}^7-$; $-\text{P}(\text{O})\text{R}^7-$; $-\text{P}^+\text{R}^7\text{R}^8\text{A}^-$; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 , and R^{10} are independently selected from R^w and carboxyalkylheterocycle;

wherein R^w is independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; $-\text{CN}$; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; $-\text{OR}^9$; $-\text{NR}^9\text{R}^{10}$; $-\text{SR}^9$; $-\text{S}(\text{O})\text{R}^9$; $-\text{SO}_2\text{R}^9$; $-\text{SO}_3\text{R}^9$; $-\text{CO}_2\text{R}^9$; and $-\text{CONR}^9\text{R}^{10}$; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; sulfide; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -N⁺R⁹R¹⁰A⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

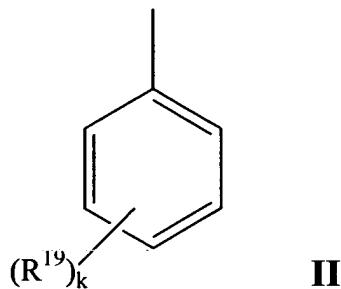
wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

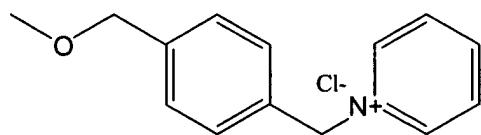
3. (Currently Amended) A compound of claim 2 wherein R⁵ is:

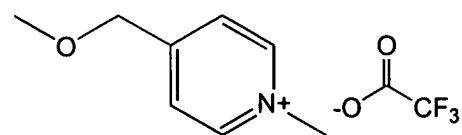
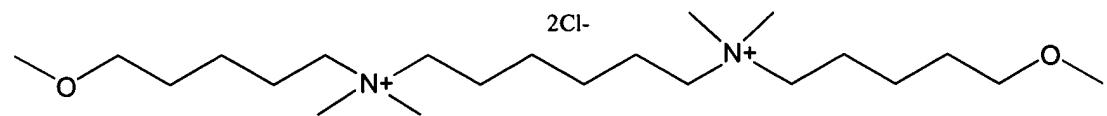
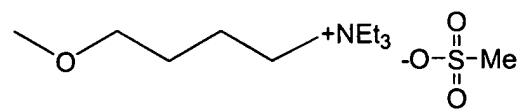
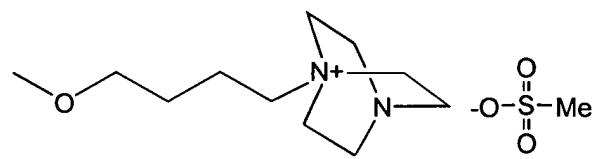
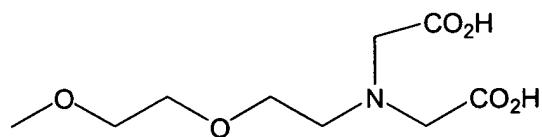
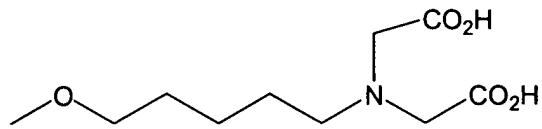


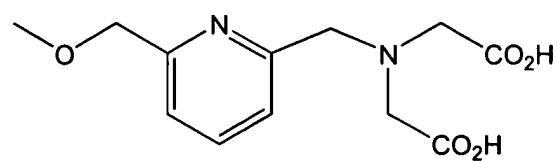
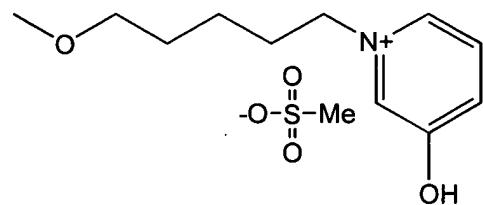
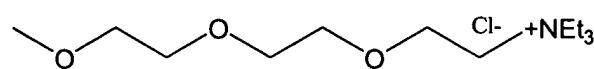
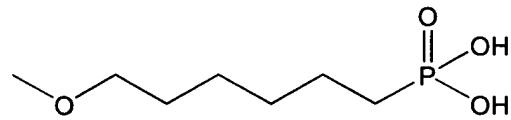
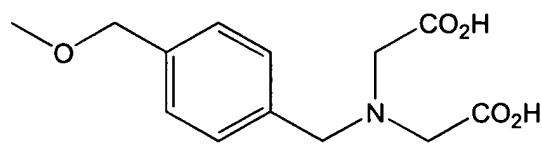
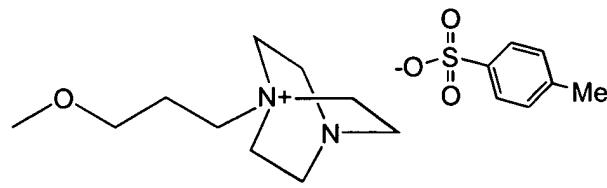
wherein

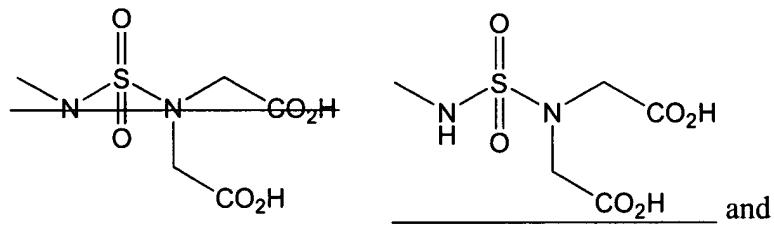
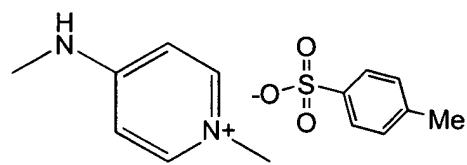
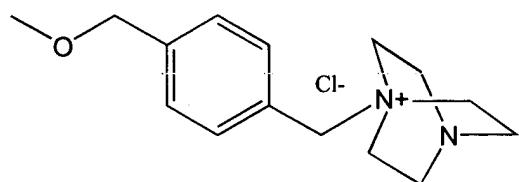
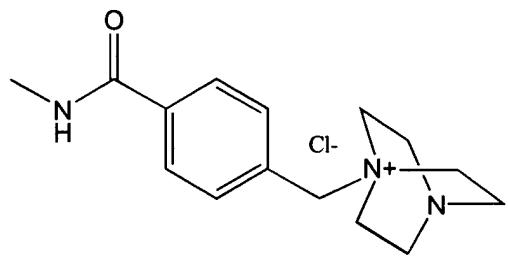
k is 0, 1, 2, 3 or 4; and

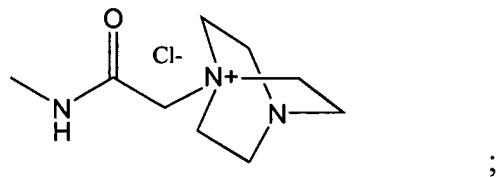
one or more R¹⁹ are independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; -N⁺R¹³R¹⁴R¹⁵A⁻; and











wherein the R^{19} alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether radicals optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A⁻; -P(O)R⁷R⁸; -PR⁷R⁸; -P⁺R⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the R^{19} alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 , and R^{10} are independently selected from R^w and carboxyalkylheterocycle;

wherein , and R^w is are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylammoniumalkyl alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl;

carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -N⁺R⁹R¹¹R¹²A⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

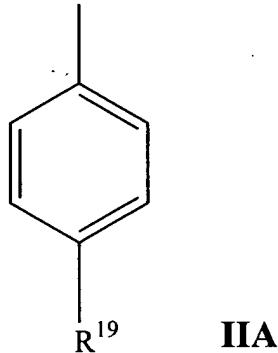
wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkyanyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

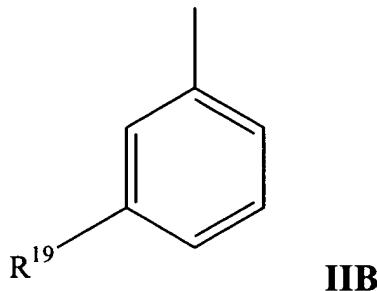
wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

4. (original) A compound of claim 3 wherein R⁵ is:



wherein R¹⁹ is as defined in Claim 3.

5. (original) A compound of claim 3 wherein R⁵ is:



wherein R¹⁹ is as defined in Claim 3.

6. (original) A compound of claim 3 wherein:

R³ is R⁵; and

R⁴ is selected from the group consisting of hydrogen and alkyl.

7. (original) A compound of claim 3 wherein:

R³ is selected from the group consisting of hydrogen and alkyl; and

R⁴ is R⁵.

8. (Currently Amended) A compound of claim 3 wherein:

R³ is R⁵; and

R⁴ is selected from the group consisting of hydrogen; alkyl; cycloalkyl; aryl; heterocyclyl; acyl, thioacyl, and -OR⁹;

wherein the R⁴ alkyl; cycloalkyl; aryl; heterocyclyl radical is substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -

$PR^{13}R^{14}$; $-P(O)R^{13}R^{14}$; $-P^+R^{13}R^{14}R^{15}A^-$; $-P(OR^{13})OR^{14}$; $-S^+R^{13}R^{14}A^-$; and $-N^+R^{13}R^{14}R^{15}A^-$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^4 radical optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; $-OR^7$; $-NR^7R^8$; $-SR^7$; $-S(O)R^7$; $-SO_2R^7$; $-SO_3R^7$; $-CO_2R^7$; $-CONR^7R^8$; $-N^+R^7R^8R^9A^-$; $-P(O)R^7R^8$; $-PR^7R^8$; $-P^+R^7R^8R^9A^-$; and $-P(O)(OR^7)OR^8$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^4 radical optionally may have one or more carbons replaced by -O-; $-NR^7$; $-N^+R^7R^8A^-$; $-S$; $-SO$; $-SO_2$; $-S^+R^7A^-$; $-PR^7$; $-P(O)R^7$; $-P^+R^7R^8A^-$; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 , R^{10} , and R^W are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylammoniumalkyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; $-OR^9$; $-NR^9R^{10}$; $-SR^9$; $-S(O)R^9$; $-SO_2R^9$; $-SO_3R^9$; $-CO_2R^9$; and $-CONR^9R^{10}$; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -N⁺R⁹R¹¹R¹²A⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl;

and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of
R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

9. (Currently Amended) A compound of claim 3 wherein:
R³ is selected from the group consisting of hydrogen; λ alkyl; cycloalkyl; aryl; heterocyclyl; acyl, thioacyl, and -OR⁹;

wherein the R³ alkyl; cycloalkyl; aryl; heterocyclyl radical is substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; λ alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; and -N⁺R¹³R¹⁴R¹⁵A⁻; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R³ radical optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -

$S(O)R^7$; $-SO_2R^7$; $-SO_3R^7$; $-CO_2R^7$; $-CONR^7R^8$; $-N^+R^7R^8R^9A^-$; $-P(O)R^7R^8$; $-PR^7R^8$; $-P^+R^7$
 $R^8R^9A^-$; and $-P(O)(OR^7)OR^8$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^3 radical optionally may have one or more carbons replaced by $-O-$; $-NR^7-$; $-N^+R^7R^8A^-$; $-S-$; $-SO-$; $-SO_2-$; $-S^+R^7A^-$; $-PR^7-$; $-P(O)R^7-$; $-P^+R^7R^8A^-$; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 , R^{10} , and R^W are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylammoniumalkyl alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; $-CN$; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; $-OR^9$; $-NR^9R^{10}$; $-SR^9$; $-S(O)R^9$; $-SO_2R^9$; $-SO_3R^9$; $-CO_2R^9$; and $-CONR^9R^{10}$; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -N⁺R⁹R¹¹R¹²A⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

R⁴ is R⁵.

10. (Currently Amended) A compound of claim 3 wherein:

R^{19} is independently selected from the group consisting of $-OR^{13}$, $-NR^{13}R^{14}$, $-NR^{13}C(O)R^{14}$, $-OC(O)NR^{13}R^{14}$, and $-NR^{13}SO_2R^{14}$, and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylammoniumalkyl alkylaminoalkyl,

wherein alkyl optionally has one or more carbons replaced by O or $N^+R^9R^{10}A^-$, and

wherein R^{13} , R^{14} , and R^{15} are optionally substituted with one or more groups selected from the group consisting of hydroxy, carboxy, alkyl, quaternary heterocyclylalkyl, $-SR^9$, $-S(O)R^9$, $-S(O)_2R^9$, $-S(O)_3R^9$, $-NR^9R^{10}$, $-N^+R^9R^{11}R^{12}A^-$, $-CONR^9R^{10}$, and $-PO(OR^{16})OR^{17}$, and

wherein R^9 and R^{10} are independently selected from the group consisting of hydrogen, alkyl, heterocyclylalkyl, carboxyalkyl, carboalkoxyalkyl, and carboxyalkylheterocyclyl; and

wherein R^{11} and R^{12} are independently alkyl; and

wherein A^- is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

11. (Previously amended) A compound of claim 3 wherein:

R^{19} is independently selected from the group consisting of $-OR^{13}$, $-NR^{13}R^{14}$, $-NR^{13}C(O)R^{14}$, $-OC(O)NR^{13}R^{14}$, and $-NR^{13}SO_2R^{14}$, and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, and alkylheterocyclylalkyl,

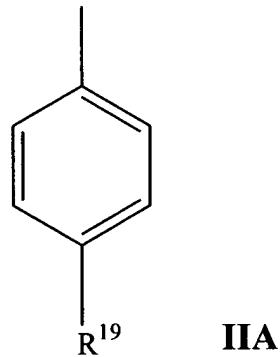
wherein R^{13} , R^{14} , and R^{15} are optionally substituted with one or more groups selected from the group consisting of hydroxy, carboxy, alkyl, quaternary heterocyclalkyl, $-SR^9$, $-S(O)R^9$, $-S(O)_2R^9$, $-S(O)_3R^9$, $-NR^9R^{10}$, $-N^+R^9R^{11}R^{12}A^-$, $-CONR^9R^{10}$, and $-PO(OR^{16})OR^{17}$, and

wherein R^9 and R^{10} are independently selected from the group consisting of hydrogen, alkyl, heterocyclalkyl, carboxyalkyl, carboalkoxyalkyl, and carboxyalkylheterocyclyl; and

wherein R^{11} and R^{12} are independently alkyl; and

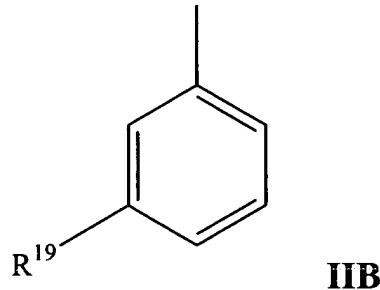
wherein A^- is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

12. (original) A compound of claim 10 wherein R^5 is:



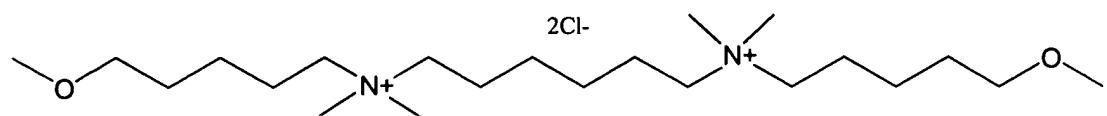
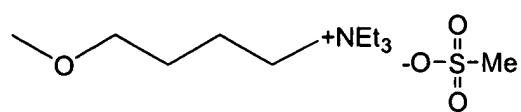
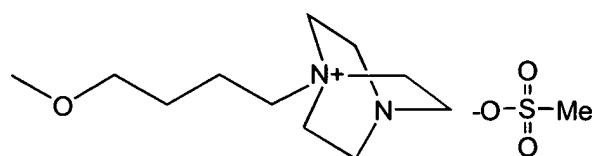
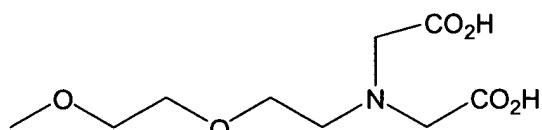
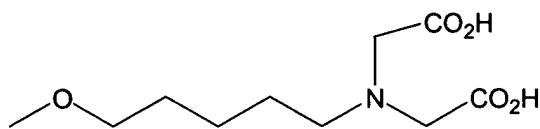
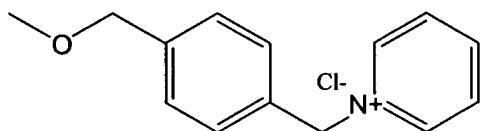
wherein R^{19} is as defined in Claim 10.

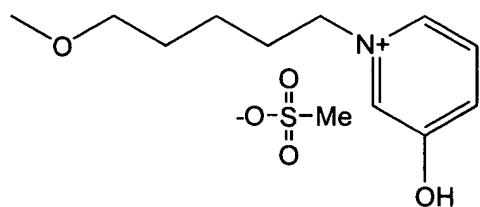
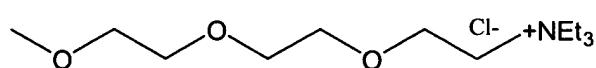
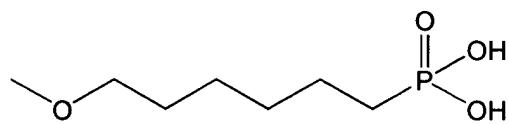
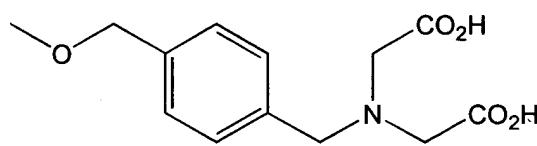
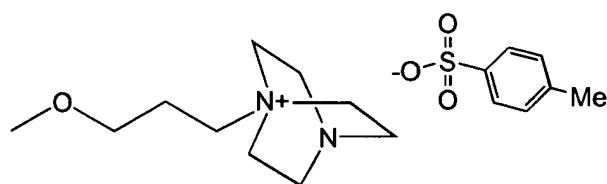
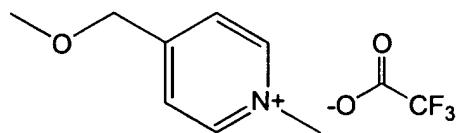
13. (original) A compound of claim 10 wherein R^5 is:

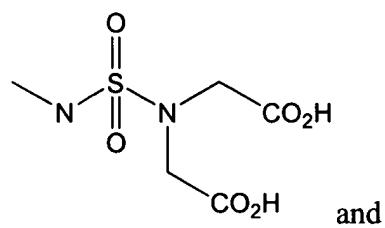
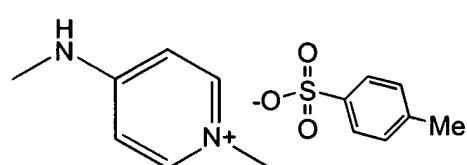
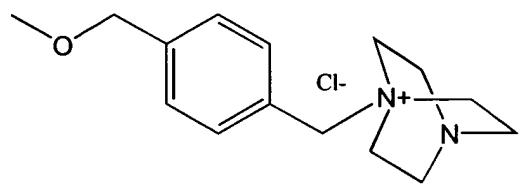
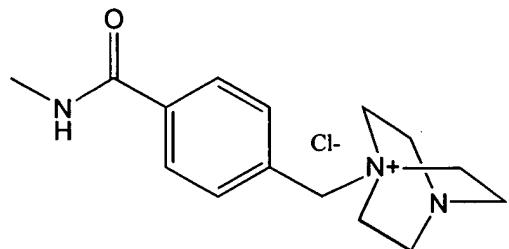
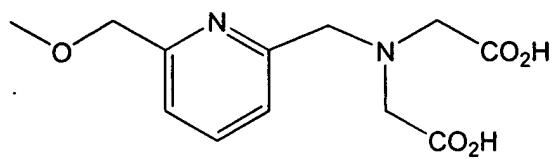


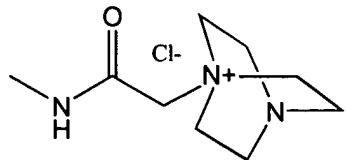
wherein R¹⁹ is as defined in Claim 10.

14. (Currently Amended) A compound of claim 3 wherein R¹⁹ is selected from the group consisting of:









15. (original) A compound of claim 3 wherein:

j is 2;

R^{1A} and R^{1B} are independently selected from hydrogen and alkyl; and

R^{2A} and R^{2B} are independently selected from hydrogen and alkyl.

16. (original) A compound of claim 3 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen; and

R^{2A} and R^{2B} are independently selected from alkyl.

17. (original) A compound of claim 3 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen; and

R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl.

18. (original) A compound of claim 3 wherein j is 1 or 2.

19. (original) A compound of claim 3 wherein j is 2.

20. (original) A compound of claim 3 wherein R^{1A} and R^{1B} are hydrogen.

21. (original) A compound of claim 3 wherein R^{2A} and R^{2B} are independently selected from the group consisting of hydrogen and C_{1-6} alkyl.

22. (original) A compound of claim 3 wherein R^{2A} and R^{2B} are independently selected from the group consisting C₁₋₆alkyl.

23. (original) A compound of claim 3 wherein R^{2A} and R^{2B} are the same alkyl.

24. (original) A compound of claim 3 wherein R^{2A} and R^{2B} are each n-butyl.

25. (original) A compound of claim 3 wherein one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl.

26. (original) A compound of claim 3 wherein one or more R⁶ are independently selected from methoxy and dimethylamino.

27. (original) A compound of claim 3 wherein

j is 1 or 2;

R^{1A} and R^{1B} are hydrogen;

R^{2A} and R^{2B} are n-butyl; and

one or more R⁶ are independently selected from methoxy and dimethylamino.

28. (original) A compound of claim 3 wherein

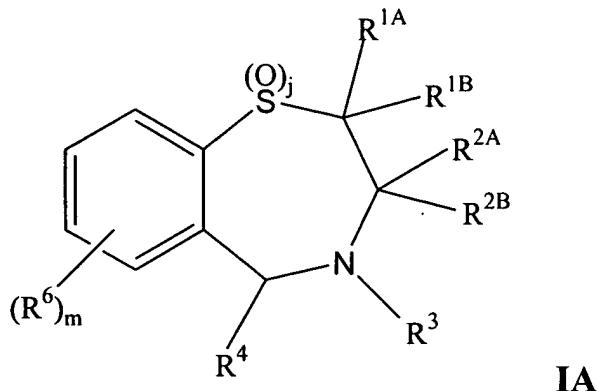
j is 1 or 2;

R^{1A} and R^{1B} are hydrogen;

one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl; and

one or more R⁶ are independently selected from methoxy and dimethylamino.

29. (Currently Amended) A compound of claim 1 corresponding to Formula IA:



IA

wherein:

j is 0, 1 or 2; and

m is 0, 1, 2, 3 or 4; and

R^{1A} and R^{1B} are independently selected from hydrogen and alkyl; and

R^{2A} and R^{2B} are independently selected from hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, aryl, and aralkyl; or

R^{2A} and R^{2B} together with the carbon atom to which they are attached form a C₃₋₇ cycloalkyl group; and

R³ and R⁴ are independently selected from the group consisting of hydrogen, acyl, thioacyl, and R⁵; and

wherein R⁵ is selected from the group consisting of alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; -OR⁹; -SR⁹; -S(O)R⁹; -SO₂R⁹; and -SO₃R⁹;

wherein the R⁵ alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; and quaternary heterocyclyl radical is substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -

$\text{NR}^{13}\text{SO}_2\text{R}^{14}$; $-\text{NR}^{13}\text{SONR}^{14}\text{R}^{15}$; $-\text{NR}^{13}\text{SO}_2\text{NR}^{14}\text{R}^{15}$; $-\text{PR}^{13}\text{R}^{14}$; $-\text{P}(\text{O})\text{R}^{13}\text{R}^{14}$; $-\text{P}^+\text{R}^{13}\text{R}^{14}\text{R}^{15}$
 A^- ; $-\text{P}(\text{O}\text{R}^{13})\text{OR}^{14}$; $-\text{S}^+\text{R}^{13}\text{R}^{14}\text{A}^-$; and $-\text{N}^+\text{R}^{13}\text{R}^{14}\text{R}^{15}\text{A}^-$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^5 radical optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A⁻; -P(O)R⁷R⁸; -PR⁷R⁸; -P⁺R⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^5 radical optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻-; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R⁹; and R¹⁰ are independently selected from R^w and carboxyalkylheterocycle;

wherein , and R^w is are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylammoniumalkyl alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -N⁺R⁹R¹¹R¹²A⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl;

and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

one or more R⁶ radicals are independently selected from the group consisting of R⁵, hydrogen; halogen; -CN; -NO₂; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -S(O)2R¹³; -SO₃R¹³; -S⁺R¹³R¹⁴A⁻; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -NR¹⁴C(O)R¹³; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -OR¹⁸; -S(O)NR¹³R¹⁴; -NR¹³R¹⁸; -NR¹⁸OR¹⁴; -N⁺R¹³R¹⁴R¹⁵A⁻; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; amino acid residue; peptide residue; polypeptide residue; and carbohydrate residue;

wherein the R⁶ alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy radicals optionally may be further substituted with one or more radicals selected from the group consisting of halogen; -CN; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -P⁹R¹⁰ -PR⁹R¹⁰; -P⁺R⁹R¹¹R¹²A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue; and

wherein the R⁶ quaternary heterocyclyl radical optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; -NO₂; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM;

$-\text{COR}^{13}$; $-\text{P}(\text{O})\text{R}^{13}\text{R}^{14}$; $-\text{P}^{+}\text{R}^{13}\text{R}^{14}$; $-\text{PR}^{13}\text{R}^{14}$; $\text{P}^{+}\text{R}^{13}\text{R}^{14}\text{R}^{15}\text{A}^{-}$; $-\text{P}(\text{OR}^{13})\text{OR}^{14}$; $-\text{S}^{+}\text{R}^{13}\text{R}^{14}\text{A}^{-}$

$-\text{N}^{+}\text{R}^{13}\text{R}^{14}\text{R}^{15}\text{A}^{-}$; and carbohydrate residue; and

wherein the R^6 radicals comprising carbon optionally may have one or more carbons replaced by $-\text{O}-$; $-\text{NR}^{13}-$; $-\text{N}^{+}\text{R}^{13}\text{R}^{14}\text{A}^{-}-$; $-\text{S}-$; $-\text{SO}-$; $-\text{SO}_2-$; $-\text{S}^{+}\text{R}^{13}\text{A}^{-}-$; $-\text{PR}^{13}-$; $-\text{P}(\text{O})\text{R}^{13}-$; $-\text{PR}^{13}\text{R}^{14}$; $-\text{P}^{+}\text{R}^{13}\text{R}^{14}\text{A}^{-}-$; phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; polyether; or polyalkyl; wherein said phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; and polyalkyl optionally may have one or more carbons replaced by $-\text{O}-$; $-\text{NR}^9-$; $-\text{N}^{+}\text{R}^9\text{R}^{10}\text{A}^{-}-$; $-\text{S}-$; $-\text{SO}-$; $-\text{SO}_2-$; $-\text{S}^{+}\text{R}^9\text{A}^{-}-$; $-\text{PR}^9-$; $-\text{P}^{+}\text{R}^9\text{R}^{10}\text{A}^{-}-$; or $-\text{P}(\text{O})\text{R}^9-$; and

wherein R^{18} is selected from the group consisting of alkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclylalkoxy carbonyl; and

wherein the R^{18} alkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclylalkoxy carbonyl radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; $-\text{CN}$; $-\text{NO}_2$; $-\text{OR}^9$; $-\text{NR}^9\text{R}^{10}$; $-\text{N}^{+}\text{R}^9\text{R}^{11}\text{R}^{12}\text{A}^{-}$; $-\text{SR}^9$; $-\text{S}(\text{O})\text{R}^9$; $-\text{SO}_2\text{R}^9$; $-\text{SO}_3\text{R}^9$; $-\text{CO}_2\text{R}^9$; $-\text{CONR}^9\text{R}^{10}$; $-\text{SO}_2\text{OM}$; $-\text{SO}_2\text{NR}^9\text{R}^{10}$; $-\text{PR}^9\text{R}^{10}$; $-\text{P}(\text{OR}^{13})\text{OR}^{14}$; $-\text{PO}(\text{OR}^{16})\text{OR}^{17}$; and $-\text{C}(\text{O})\text{OM}$; or

a pharmaceutically acceptable salt or solvate thereof;

provided that at least one of R^3 , R^4 and R^6 is R^5 ; and

provided that the R^5 alkyl, cycloalkyl, aryl, heterocyclyl, and $-\text{OR}^9$ radicals are not substituted with $-\text{O}(\text{CH}_2)_{1-4}\text{NR}'\text{R}''\text{R}'''$ $-\text{O}(\text{CH}_2)_{1-4}\text{N}^{+}\text{R}'\text{R}''\text{R}''' \text{A}^{-}$ wherein R' , R'' and R''' are independently selected from hydrogen and alkyl; and

provided that at least one of the following conditions is satisfied:

(a) the R^5 moiety possesses an overall positive charge; and/or

(b) the R⁵ moiety comprises a quaternary ammonium group or a quaternary amine salt; and/or

(c) the R⁵ moiety comprises at least two carboxy groups.

30. (Currently Amended) A compound of Claim 29 wherein R⁵ is aryl substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; and -N⁺R¹³R¹⁴R¹⁵A⁻; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R⁵ aryl optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A⁻; -P(O)R⁷R⁸; -PR⁷R⁸; -P⁺R⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R⁵ aryl optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 , and R^{10} are independently selected from R^w and carboxyalkylheterocycle;

wherein R^w is independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl;

aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclalkyl; carboxy; carboxyalkyl; guanidinyl; $-OR^{16}$; $-NR^9R^{10}$; $-N^+R^9R^{10}R^wA^-$; $-N^+R^9R^{11}R^{12}A^-$; $-SR^{16}$; $-S(O)R^9$; $-SO_2R^9$; $-SO_3R^{16}$; $-CO_2R^{16}$; $-CONR^9R^{10}$; $-SO_2NR^9R^{10}$; $-PO(OR^{16})OR^{17}$; $-PR^9R^{10}$; $-P^+R^9R^{10}R^{11}A^-$; $-S^+R^9R^{10}A^-$; and carbohydrate residue;

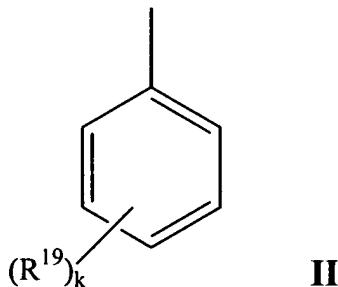
wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with $N^+R^9R^{11}R^{12}A^-$; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by $-O-$; $-NR^9-$; $-N^+R^9R^{10}A^-$; $-S-$; $-SO-$; $-SO_2-$; $-S^+R^9A^-$; $-PR^9-$; $-P^+R^9R^{10}A^-$; $-P(O)R^9-$; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R^{16} and R^{17} are independently selected from the group consisting of R^9 and M ; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

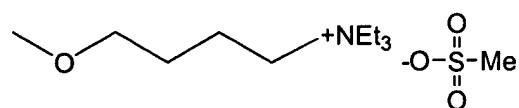
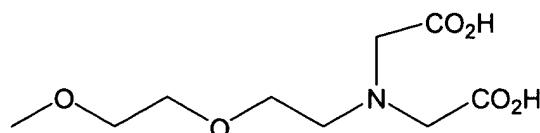
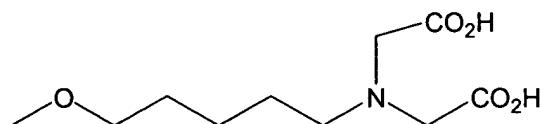
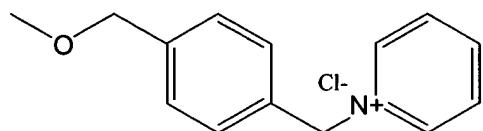
31. (Currently Amended) A compound of claim 30 wherein R^5 is:

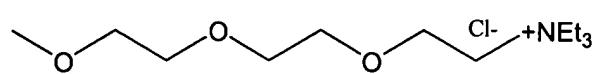
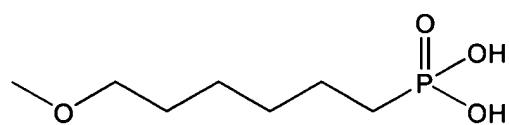
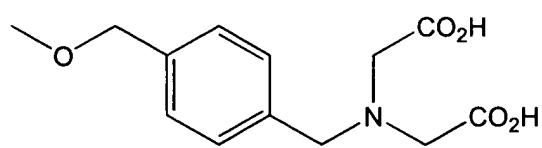
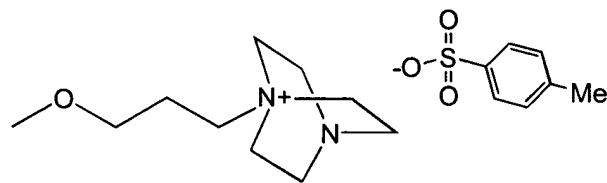
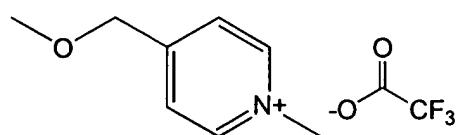
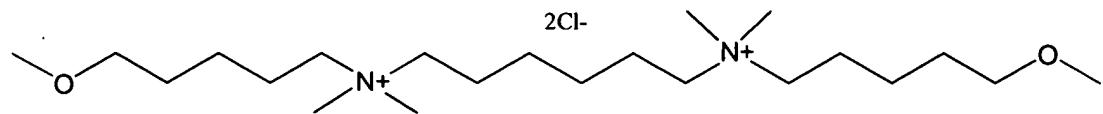


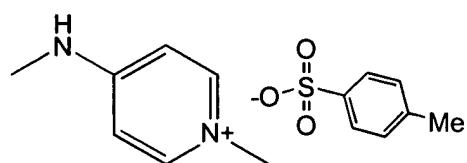
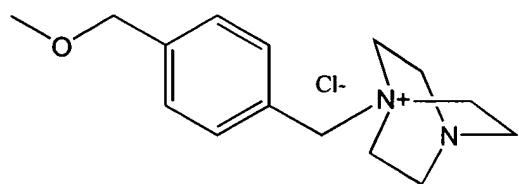
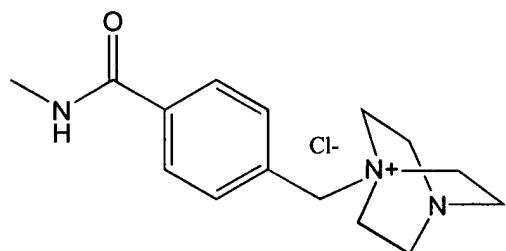
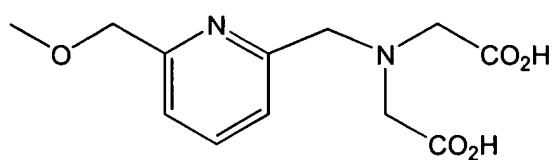
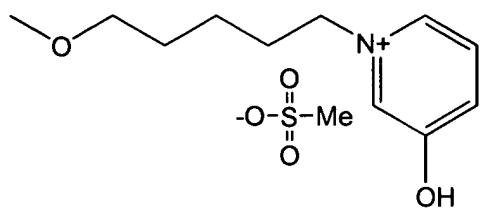
wherein

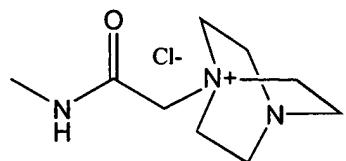
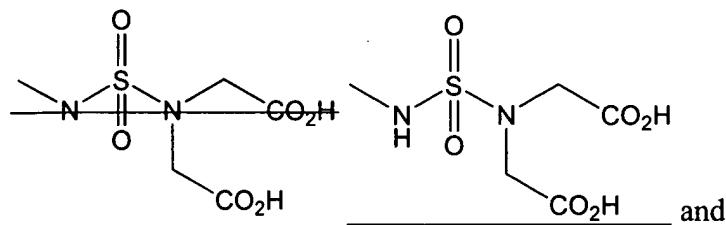
k is 0, 1, 2, 3 or 4; and

one or more R¹⁹ are independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; -N⁺R¹³R¹⁴R¹⁵A⁻; and









wherein the R^{19} alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether radicals optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸A⁻; -P(O)R⁷R⁸; -PR⁷R⁸; -P⁺R⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the R^{19} alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 , and R^{10} are independently selected from R^w and carboxyalkylheterocycle;

wherein , and R^w is are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylammoniumalkyl alkylaminoalkyl;

arylalkyl; heterocyclalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -N⁺R⁹R¹¹R¹²A⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -

SO_3R^{16} ; $-\text{CO}_2\text{R}^{16}$; $-\text{CONR}^9\text{R}^{10}$; $-\text{SO}_2\text{NR}^9\text{R}^{10}$; $-\text{PO}(\text{OR}^{16})\text{OR}^{17}$; $-\text{PR}^9\text{R}^{10}$; $-\text{P}^+\text{R}^9\text{R}^{10}\text{R}^{11}\text{A}^-$; $-\text{S}^+\text{R}^9\text{R}^{10}\text{A}^-$; and carbohydrate residue;

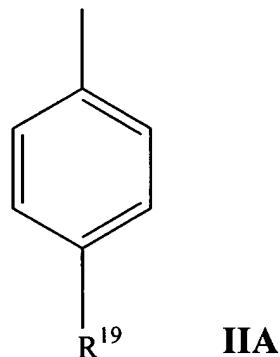
wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with $\text{N}^+\text{R}^9\text{R}^{11}\text{R}^{12}\text{A}^-$; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclalkyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by $-\text{O}-$; $-\text{NR}^9-$; $-\text{N}^+\text{R}^9\text{R}^{10}\text{A}^-$; $-\text{S}-$; $-\text{SO}-$; $-\text{SO}_2-$; $-\text{S}^+\text{R}^9\text{A}^-$; $-\text{PR}^9-$; $-\text{P}^+\text{R}^9\text{R}^{10}\text{A}^-$; $-\text{P}(\text{O})\text{R}^9-$; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R^{16} and R^{17} are independently selected from the group consisting of R^9 and M ; and

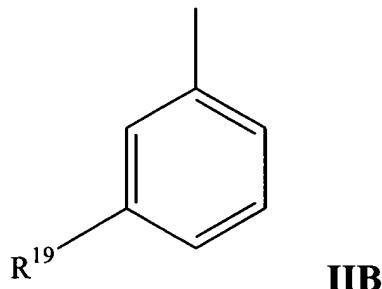
wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

32. (original) A compound of claim 31 wherein R^5 is:



wherein R^{19} is as defined in Claim 31.

33. (original) A compound of claim 31 wherein R⁵ is:



wherein R¹⁹ is as defined in Claim 31.

34. (original) A compound of claim 31 wherein:

R³ is R⁵; and

R⁴ is selected from the group consisting of hydrogen and alkyl.

35. (original) A compound of claim 31 wherein:

R³ is selected from the group consisting of hydrogen and alkyl; and

R⁴ is R⁵.

36. (Currently Amended) A compound of claim 31 wherein:

R³ is R⁵; and

R⁴ is selected from the group consisting of hydrogen; alkyl; cycloalkyl; aryl;

heterocyclyl; acyl, thioacyl, and -OR⁹;

wherein the R⁴ alkyl; cycloalkyl; aryl; heterocyclyl radical is substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -

OC(O)R^{13} ; $-\text{OC(O)NR}^{13}\text{R}^{14}$; $-\text{NR}^{13}\text{SOR}^{14}$; $-\text{NR}^{13}\text{SO}_2\text{R}^{14}$; $-\text{NR}^{13}\text{SONR}^{14}\text{R}^{15}$; $-\text{NR}^{13}\text{SO}_2\text{NR}^{14}\text{R}^{15}$; $-\text{PR}^{13}\text{R}^{14}$; $-\text{P(O)R}^{13}\text{R}^{14}$; $-\text{P}^+\text{R}^{13}\text{R}^{14}\text{R}^{15}\text{A}^-$; $-\text{P(O)R}^{13}\text{OR}^{14}$; $-\text{S}^+\text{R}^{13}\text{R}^{14}\text{A}^-$; and $-\text{N}^+\text{R}^{13}\text{R}^{14}\text{R}^{15}\text{A}^-$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^4 radical optionally may be further substituted with one or more radicals selected from the group consisting of $-\text{CN}$; halogen; hydroxy, alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; $-\text{OR}^7$; $-\text{NR}^7\text{R}^8$; $-\text{SR}^7$; $-\text{S(O)R}^7$; $-\text{SO}_2\text{R}^7$; $-\text{SO}_3\text{R}^7$; $-\text{CO}_2\text{R}^7$; $-\text{CONR}^7\text{R}^8$; $-\text{N}^+\text{R}^7\text{R}^8\text{R}^9\text{A}^-$; $-\text{P(O)R}^7\text{R}^8$; $-\text{PR}^7\text{R}^8$; $-\text{P}^+\text{R}^7\text{R}^8\text{R}^9\text{A}^-$; and $-\text{P(O)(OR}^7\text{)OR}^8$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^4 radical optionally may have one or more carbons replaced by $-\text{O}-$; $-\text{NR}^7-$; $-\text{N}^+\text{R}^7\text{R}^8\text{A}^-$; $-\text{S}-$; $-\text{SO}-$; $-\text{SO}_2-$; $-\text{S}^+\text{R}^7\text{A}^-$; $-\text{PR}^7-$; $-\text{P(O)R}^7-$; $-\text{P}^+\text{R}^7\text{R}^8\text{A}^-$; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 , R^{10} , and R^W are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylammoniumalkyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; $-\text{CN}$; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; $-\text{OR}^9$; $-\text{NR}^9\text{R}^{10}$; $-\text{SR}^9$; $-\text{S(O)R}^9$; $-\text{SO}_2\text{R}^9$; $-\text{SO}_3\text{R}^9$; $-\text{CO}_2\text{R}^9$; and $-\text{CONR}^9\text{R}^{10}$; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocycl; quaternary heterocycl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocycl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocycl; quaternary heterocycl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN, alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocycl; quaternary heterocycl; quaternary heterocyclalkyl; carboxy; carboxyalkyl; guanidinyl; $-OR^{16}$; $-NR^9R^{10}$; $-N^+R^9R^{10}R^wA^-$; $-N^+R^9R^{11}R^{12}A^-$; $-SR^{16}$; $-S(O)R^9$; $-SO_2R^9$; $-SO_3R^{16}$; $-CO_2R^{16}$; $-CONR^9R^{10}$; $-SO_2NR^9R^{10}$; $-PO(OR^{16})OR^{17}$; $-PR^9R^{10}$; $-P^+R^9R^{10}R^{11}A^-$; $-S^+R^9R^{10}A^-$; and carbohydrate residue;

wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocycl, arylalkyl, heterocyclalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with $N^+R^9R^{11}R^{12}A^-$; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocycl; quaternary heterocycl; arylalkyl; heterocyclalkyl; quaternary

heterocyclalkyl; alkylarylkyl; alkylheterocyclalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

37. (Currently Amended) A compound of claim 31 wherein:

R³ is selected from the group consisting of hydrogen; alkyl; cycloalkyl; aryl; heterocyclalkyl; acyl, thioacyl, and -OR⁹;

wherein the R³ alkyl; cycloalkyl; aryl; heterocyclalkyl radical is substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclalkyl; quaternary heterocyclalkyl; arylalkyl; heterocyclalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; and -N⁺R¹³R¹⁴R¹⁵A⁻; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclalkyl, quaternary heterocyclalkyl, arylalkyl, heterocyclalkyl, and polyether substituents of the R³ radical optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl;

heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A⁻; -P(O)R⁷R⁸; -PR⁷R⁸; -P⁺R⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R³ radical optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R⁹, R¹⁰, and R^W are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylammoniumalkyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -N⁺R⁹R¹¹R¹²A⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R^{16} and R^{17} are independently selected from the group consisting of R^9 and M ; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

R⁴ is R⁵.

38. (Currently Amended) A compound of claim 31 wherein:

R¹⁹ is independently selected from the group consisting of -OR¹³, -NR¹³R¹⁴, -NR¹³C(O)R¹⁴, -OC(O)NR¹³R¹⁴, and -NR¹³SO₂R¹⁴, and
wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylammoniumalkyl alkylaminoalkyl,
wherein alkyl optionally has one or more carbons replaced by O or N⁺R⁹R¹⁰A-, and
wherein R¹³, R¹⁴, and R¹⁵ are optionally substituted with one or more groups selected from the group consisting of hydroxy, carboxy, alkyl, quaternary heterocyclylalkyl, -SR⁹, -S(O)R⁹, -S(O)₂R⁹, -S(O)₃R⁹, -NR⁹R¹⁰, -N⁺R⁹R¹¹R¹²A-, -CONR⁹R¹⁰, and -PO(OR¹⁶)OR¹⁷, and

wherein R⁹ and R¹⁰ are independently selected from the group consisting of hydrogen, alkyl, heterocyclylalkyl, carboxyalkyl, carboalkoxyalkyl, and carboxyalkylheterocyclyl; and

wherein R¹¹ and R¹² are independently alkyl; and

wherein A⁻ is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

39. (Previously amended) A compound of claim 31 wherein:

R¹⁹ is independently selected from the group consisting of -OR¹³, -NR¹³R¹⁴, -NR¹³C(O)R¹⁴, -OC(O)NR¹³R¹⁴, and -NR¹³SO₂R¹⁴, and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclalkyl, quaternary heterocyclalkyl, and alkylheterocyclalkyl,

wherein alkyl optionally has one or more carbons replaced by O or N⁺R⁹R¹⁰A⁻, and

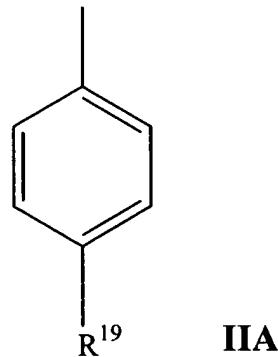
wherein R¹³, R¹⁴, and R¹⁵ are optionally substituted with one or more groups selected from the group consisting of hydroxy, carboxy, alkyl, quaternary heterocyclalkyl, -SR⁹, -S(O)R⁹, -S(O)₂R⁹, -S(O)₃R⁹, -NR⁹R¹⁰, -N⁺R⁹R¹¹R¹²A⁻, -CONR⁹R¹⁰, and -PO(OR¹⁶)OR¹⁷, and

wherein R⁹ and R¹⁰ are independently selected from the group consisting of hydrogen, alkyl, heterocyclalkyl, carboxyalkyl, carboalkoxyalkyl, and carboxyalkylheterocyclyl; and

wherein R¹¹ and R¹² are independently alkyl; and

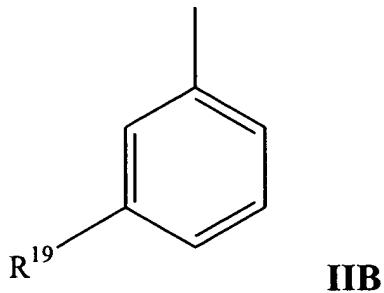
wherein A⁻ is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

40. (original) A compound of claim 38 wherein R⁵ is:



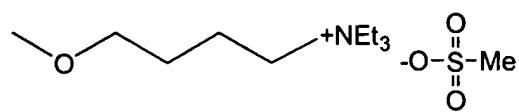
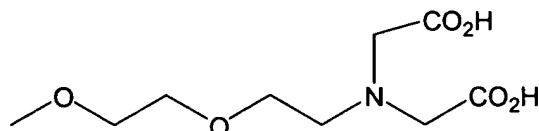
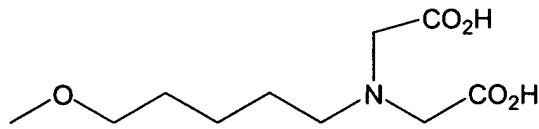
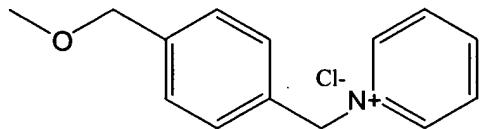
wherein R¹⁹ is as defined in Claim 38.

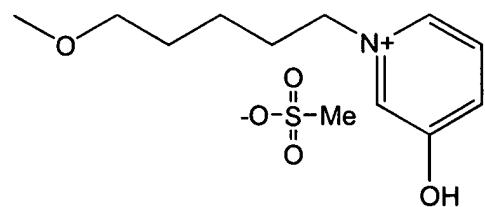
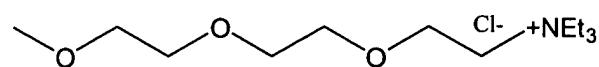
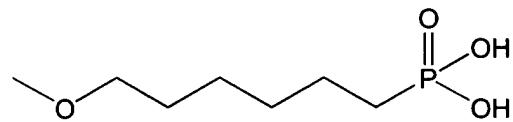
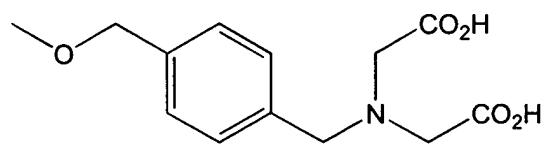
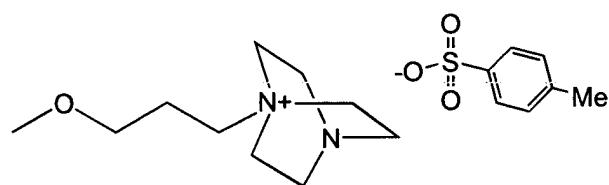
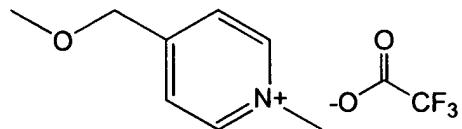
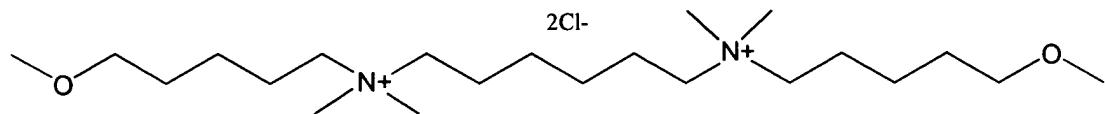
41. (original) A compound of claim 38 wherein R⁵ is:

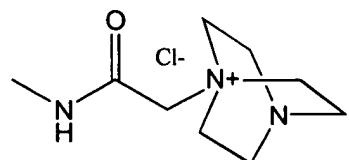
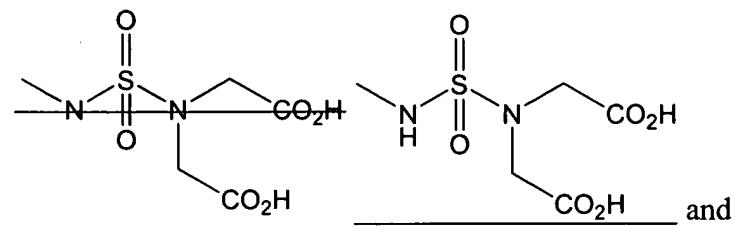
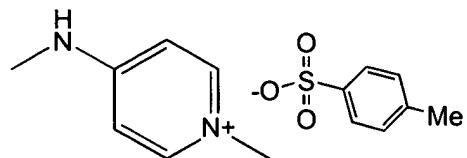
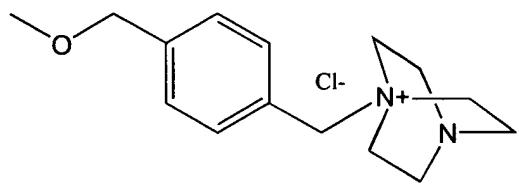
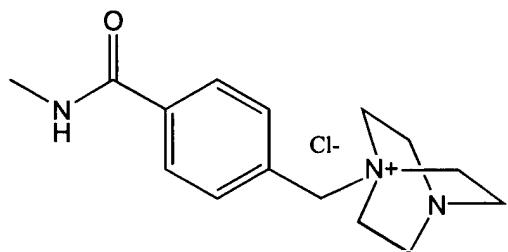
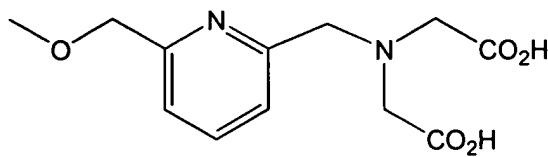


wherein R^{19} is as defined in Claim 38.

42. (Currently Amended) A compound of claim 31 wherein R^{19} is selected from the group consisting of:







43. (original) A compound of claim 38 wherein:

j is 2;

R^{1A} and R^{1B} are independently selected from hydrogen and alkyl; and
 R^{2A} and R^{2B} are independently selected from hydrogen and alkyl.

44. (original) A compound of claim 38 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen; and
 R^{2A} and R^{2B} are independently selected from alkyl.

45. (original) A compound of claim 38 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen; and
 R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl.

46. (original) A compound of claim 38 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen;
 R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl;
 R^3 is R^5 ; and
 R^4 is selected from hydrogen and alkyl.

47. (original) A compound of claim 38 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen;
 R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl;
 R^3 is selected from from hydrogen and alkyl; and
 R^4 is R^5 .

48. (original) A compound of claim 38 wherein j is 1 or 2.
49. (original) A compound of claim 38 wherein j is 2.
50. (original) A compound of claim 38 wherein R^{1A} and R^{1B} are hydrogen.
51. (original) A compound of claim 38 wherein R^{2A} and R^{2B} are independently selected from the group consisting of hydrogen and C₁₋₆alkyl.
52. (original) A compound of claim 38 wherein R^{2A} and R^{2B} are independently selected from the group consisting C₁₋₆ alkyl.
53. (original) A compound of claim 38 wherein R^{2A} and R^{2B} are the same alkyl.
54. (original) A compound of claim 38 wherein R^{2A} and R^{2B} are each n-butyl.
55. (original) A compound of claim 38 wherein one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl.
56. (original) A compound of claim 38 wherein one or more R⁶ are independently selected from methoxy and dimethylamino.
57. (original) A compound of claim 38 wherein j is 1 or 2; R^{1A} and R^{1B} are hydrogen; R^{2A} and R^{2B} are n-butyl; and one or more R⁶ are independently selected from methoxy and dimethylamino.
58. (original) A compound of claim 38 wherein

j is 1 or 2;

R^{1A} and R^{1B} are hydrogen;

one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl; and

one or more R⁶ are independently selected from methoxy and dimethylamino.

59. (original) A compound of claim 42 wherein:

j is 2;

R^{1A} and R^{1B} are independently selected from hydrogen and alkyl; and

R^{2A} and R^{2B} are independently selected from hydrogen and alkyl.

60. (original) A compound of claim 42 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen; and

R^{2A} and R^{2B} are independently selected from alkyl.

61. (original) A compound of claim 42 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen; and

R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl.

62. (original) A compound of claim 42 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen;

R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl;

R³ is R⁵; and

R⁴ is selected from hydrogen and alkyl.

63. (original) A compound of claim 42 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen;

R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl;

R^3 is selected from from hydrogen and alkyl; and

R^4 is R^5 .

64. (original) A compound of claim 42 wherein j is 1 or 2.

65. (original) A compound of claim 42 wherein j is 2.

66. (original) A compound of claim 42 wherein R^{1A} and R^{1B} are hydrogen.

67. (original) A compound of claim 42 wherein R^{2A} and R^{2B} are independently selected from the group consisting of hydrogen and C_{1-6} alkyl.

68. (original) A compound of claim 42 wherein R^{2A} and R^{2B} are independently selected from the group consisting C_{1-6} alkyl.

69. (original) A compound of claim 42 wherein R^{2A} and R^{2B} are the same alkyl.

70. (original) A compound of claim 42 wherein R^{2A} and R^{2B} are each n-butyl.

71. (original) A compound of claim 42 wherein one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl.

72. (original) A compound of claim 42 wherein one or more R^6 are independently selected from methoxy and dimethylamino.

73. (original) A compound of claim 42 wherein
j is 1 or 2;

R^{1A} and R^{1B} are hydrogen;

R^{2A} and R^{2B} are n-butyl; and

one or more R⁶ are independently selected from methoxy and dimethylamino.

74. (original) A compound of claim 42 wherein

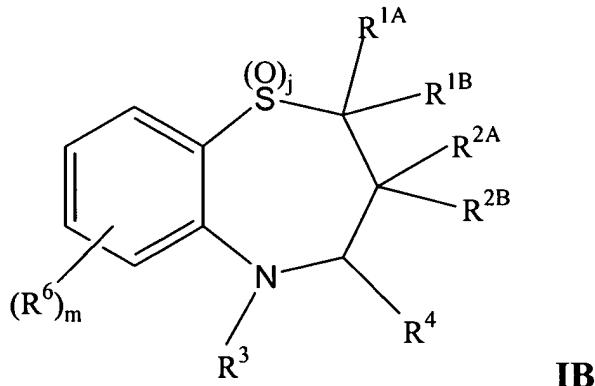
j is 1 or 2;

R^{1A} and R^{1B} are hydrogen;

one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl; and

one or more R⁶ are independently selected from methoxy and dimethylamino.

75. (Currently Amended) A compound of claim 1 corresponding to Formula IB:



wherein:

j is 0, 1 or 2; and

m is 0, 1, 2, 3 or 4; and

R^{1A} and R^{1B} are independently selected from hydrogen and alkyl; and

R^{2A} and R^{2B} are independently selected from hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, aryl, and aralkyl; or

R^{2A} and R^{2B} together with the carbon atom to which they are attached form a C₃₋₇ cycloalkyl group; and

R³ and R⁴ are independently selected from the group consisting of hydrogen, acyl, thioacyl and R⁵; and

wherein R^5 is selected from the group consisting of alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; $-OR^9$; $-SR^9$; $-S(O)R^9$; $-SO_2R^9$; and $-SO_3R^9$;

wherein the R^5 alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; and quaternary heterocyclyl radical is substituted with one or more radicals independently selected from the group consisting of halogen; $-CN$; $-NO_2$; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; $-OR^{13}$; $-NR^{13}R^{14}$; $-SR^{13}$; $-S(O)R^{13}$; $-SO_2R^{13}$; $-SO_3R^{13}$; $-NR^{13}OR^{14}$; $-NR^{13}NR^{14}R^{15}$; $-CO_2R^{13}$; $-OM$; $-SO_2OM$; $-SO_2NR^{13}R^{14}$; $-C(O)NR^{13}R^{14}$; $-C(O)OM$; $-COR^{13}$; $-NR^{13}C(O)R^{14}$; $-NR^{13}C(O)NR^{14}R^{15}$; $-NR^{13}CO_2R^{14}$; $-OC(O)R^{13}$; $-OC(O)NR^{13}R^{14}$; $-NR^{13}SOR^{14}$; $-NR^{13}SO_2R^{14}$; $-NR^{13}SONR^{14}R^{15}$; $-NR^{13}SO_2NR^{14}R^{15}$; $-PR^{13}R^{14}$; $-P(O)R^{13}R^{14}$; $-P^+R^{13}R^{14}R^{15}A^-$; $-P(O)R^{13}OR^{14}$; $-S^+R^{13}R^{14}A^-$; and $-N^+R^{13}R^{14}R^{15}A^-$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^5 radical optionally may be further substituted with one or more radicals selected from the group consisting of $-CN$; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; $-OR^7$; $-NR^7R^8$; $-SR^7$; $-S(O)R^7$; $-SO_2R^7$; $-SO_3R^7$; $-CO_2R^7$; $-CONR^7R^8$; $-N^+R^7R^8R^9A^-$; $-P(O)R^7R^8$; $-PR^7R^8$; $-P^+R^7R^8R^9A^-$; and $-P(O)OR^7OR^8$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^5 radical optionally may have one or more carbons replaced by $-O-$; $-NR^7-$; $-N^+R^7R^8A^-$; $-S-$; $-SO-$; $-SO_2-$; $-S^+R^7A^-$; $-PR^7-$; $-P(O)R^7-$; $-P^+R^7R^8A^-$; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 ; and R^{10} are independently selected from R^w and carboxyalkylheterocycle;

wherein $-$ and R^W is are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; $-OR^9$; $-NR^9R^{10}$; $-SR^9$; $-S(O)R^9$; $-SO_2R^9$; $-SO_3R^9$; $-CO_2R^9$; and $-CONR^9R^{10}$; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN, alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl;

guanidinyl; $-OR^{16}$; $-NR^9R^{10}$; $-N^+R^9R^{10}R^wA^-$; $-N^+R^9R^{11}R^{12}A^-$; $-SR^{16}$; $-S(O)R^9$; $-SO_2R^9$; $-SO_3R^{16}$; $-CO_2R^{16}$; $-CONR^9R^{10}$; $-SO_2NR^9R^{10}$; $-PO(OR^{16})OR^{17}$; $-PR^9R^{10}$; $-P^+R^9R^{10}R^{11}A^-$; $-S^+R^9R^{10}A^-$; and carbohydrate residue;

wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with $N^+R^9R^{11}R^{12}A^-$; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by $-O-$; $-NR^9-$; $-N^+R^9R^{10}A^-$; $-S-$; $-SO-$; $-SO_2-$; $-S^+R^9A^-$; $-PR^9-$; $-P^+R^9R^{10}A^-$; $-P(O)R^9-$; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R^{16} and R^{17} are independently selected from the group consisting of R^9 and M ; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

one or more R^6 radicals are independently selected from the group consisting of R^5 , hydrogen; halogen; $-CN$; $-NO_2$; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; polyether; acyloxy; $-OR^{13}$; $-NR^{13}R^{14}$; $-SR^{13}$; $-S(O)R^{13}$; $-S(O)2R^{13}$; $-SO_3R^{13}$; $-S^+R^{13}R^{14}A^-$; $-NR^{13}OR^{14}$; $-NR^{13}NR^{14}R^{15}$; $-CO_2R^{13}$; $-OM$; $-SO_2OM$; $-SO_2NR^{13}R^{14}$; $-NR^{14}C(O)R^{13}$; $-C(O)NR^{13}R^{14}$; $-C(O)OM$; $-COR^{13}$; $-OR^{18}$; $-S(O)NR^{13}R^{14}$; $-NR^{13}R^{18}$; $-NR^{18}OR^{14}$; $-N^+R^{13}R^{14}R^{15}A^-$; $-PR^{13}R^{14}$; $-P(O)R^{13}R^{14}$; $-P^+R^{13}R^{14}R^{15}A^-$; amino acid residue; peptide residue; polypeptide residue; and carbohydrate residue;

wherein the R^6 alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy radicals optionally may be further substituted with one or more radicals selected from the group consisting of halogen; -CN; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA⁻; -N⁺R⁹R¹⁰R¹²A⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO²R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹¹R¹²A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue; and

wherein the R^6 quaternary heterocyclyl radical optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; -NO₂; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴—PR¹³R¹⁴; P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; -N⁺R¹³R¹⁴R¹⁵A⁻; and carbohydrate residue; and

wherein the R^6 radicals comprising carbon optionally may have one or more carbons replaced by -O-; -NR¹³-; -N⁺R¹³R¹⁴A⁻; -S-; -SO-; -SO₂-; -S⁺R¹³A⁻; -PR¹³-; -P(O)R¹³-; -PR¹³R¹⁴; -P⁺R¹³R¹⁴A⁻; phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; polyether; or polyalkyl; wherein said phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; and polyalkyl optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; or -P(O)R⁹-; and

wherein R^{18} is selected from the group consisting of alkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclylalkoxy carbonyl; and

wherein the R^{18} alkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and

heterocyclalkoxycarbonyl radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; NO₂; -OR⁹; -NR⁹R¹⁰; -N⁺R⁹R¹¹R¹²A⁻; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; -CONR⁹R¹⁰; -SO₂OM; -SO₂NR⁹R¹⁰; -PR⁹R¹⁰; -P(OR¹³)OR¹⁴; -PO(OR¹⁶)OR¹⁷; and -C(O)OM; or

a pharmaceutically acceptable salt or solvate thereof;

provided that at least one of R³, R⁴ and R⁶ is R⁵; and

provided that the R⁵ alkyl, cycloalkyl, aryl, and heterocyclyl, and -OR⁹ radicals are not substituted with -O(CH₂)₁₋₄NR'R''R''' -O(CH₂)₁₋₄N⁺R'R''R'''A⁻ wherein R', R'' and R''' are independently selected from hydrogen and alkyl; and

provided that at least one of the following conditions is satisfied:

- (a) the R⁵ moiety possesses an overall positive charge;
- (b) the R⁵ moiety comprises a quaternary ammonium group or a quaternary amine salt;

and

- (c) the R⁵ moiety comprises at least two carboxy groups.

76. (Currently Amended) A compound of Claim 75 wherein R⁵ is aryl substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; and -N⁺R¹³R¹⁴R¹⁵A⁻; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclalkyl, and polyether substituents of the R⁵ aryl optionally may be further substituted with one or more radicals selected from the

group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A⁻; -P(O)R⁷R⁸; -PR⁷R⁸; -P⁺R⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R⁵ aryl optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene;

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl;

wherein R⁹; and R¹⁰ are independently selected from R^w and carboxyalkylheterocycle;

wherein R^w is independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylammoniumalkyl alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -N⁺R⁹R¹¹R¹²A⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

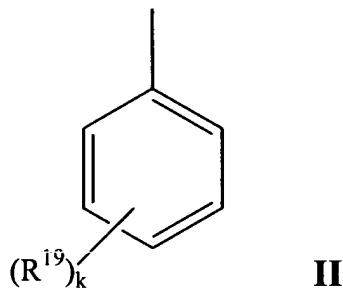
wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

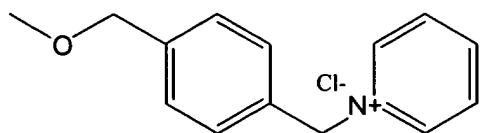
77. (Currently Amended) A compound of claim 76 wherein R⁵ is:

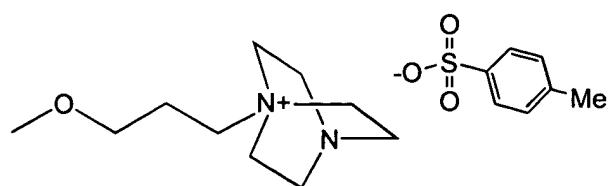
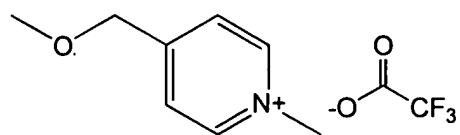
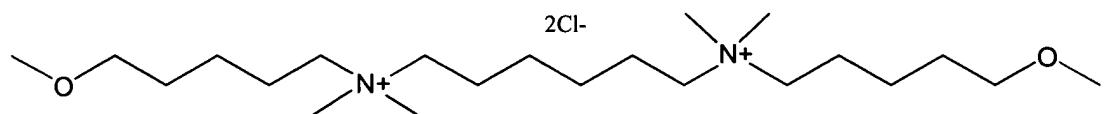
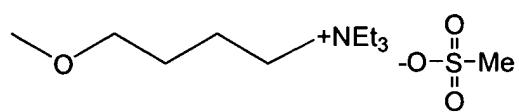
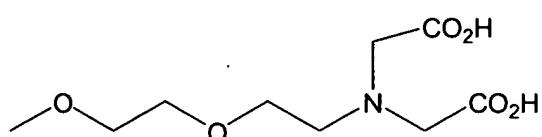
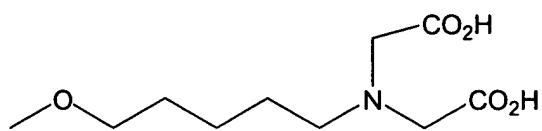


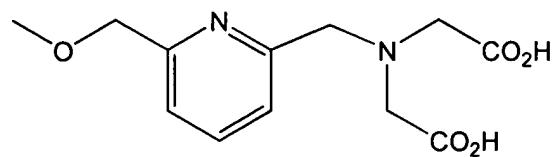
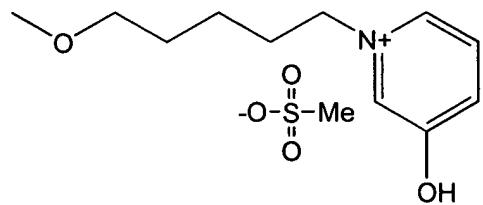
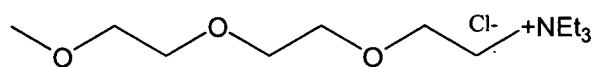
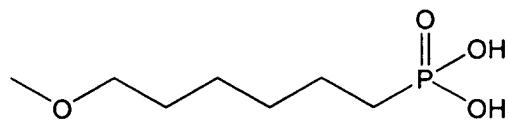
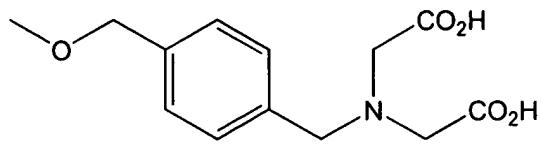
wherein

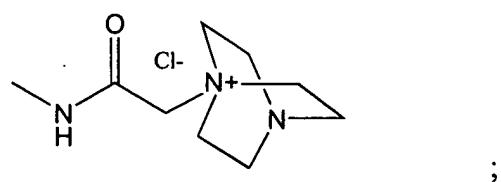
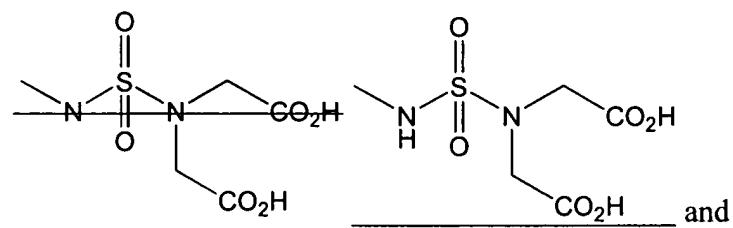
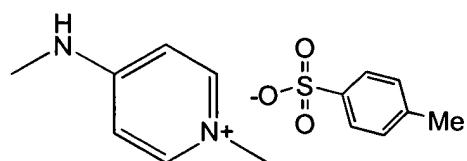
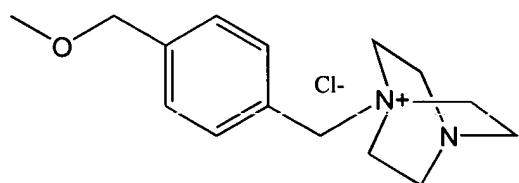
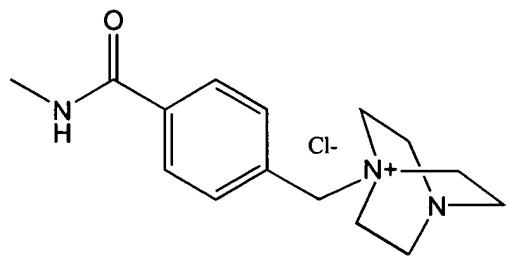
k is 0, 1, 2, 3 or 4; and

one or more R¹⁹ are independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; -N⁺R¹³R¹⁴R¹⁵A⁻; and









wherein the R¹⁹alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether radicals

optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A⁻; -P(O)R⁷R⁸; -PR⁷R⁸; -P⁺R⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the R¹⁹ alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻-; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻-; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻-; or phenylene; and

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R⁹; and R¹⁰ are independently selected from R^w and carboxyalkylheterocycle;

wherein and R^w is are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylammoniumalkyl alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl;

alkylheterocyclalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

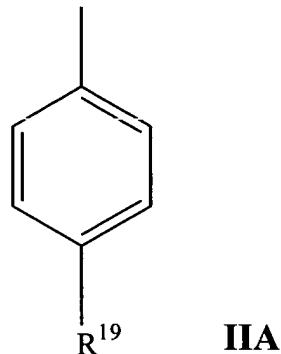
wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylkalkyl; alkylheterocyclalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -N⁺R⁹R¹¹R¹²A⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylkalkyl; alkylheterocyclalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

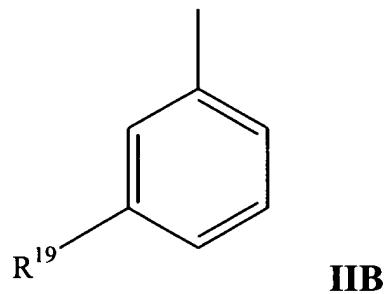
wherein R^{16} and R^{17} are independently selected from the group consisting of R^9 and M ; and
wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

78. (original) A compound of claim 77 wherein R^5 is:



wherein R^{19} is as defined in Claim 77.

79. (original) A compound of claim 77 wherein R^5 is:



wherein R^{19} is as defined in Claim 77.

80. (original) A compound of claim 77 wherein:
 R^3 is R^5 ; and
 R^4 is selected from the group consisting of hydrogen and alkyl.

81. (original) A compound of claim 77 wherein:

R^3 is selected from the group consisting of hydrogen and alkyl; and

R^4 is R^5 .

82. (Currently Amended) A compound of claim 77 wherein:

R^3 is R^5 ; and

R^4 is selected from the group consisting of hydrogen; alkyl; cycloalkyl; aryl; heterocyclyl; acyl, thioacyl, and $-OR^9$;

wherein the R^4 alkyl; cycloalkyl; aryl; heterocyclyl radical is substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; $-OR^{13}$; $-NR^{13}R^{14}$; $-SR^{13}$; $-S(O)R^{13}$; $-SO_2R^{13}$; $-SO_3R^{13}$; $-NR^{13}OR^{14}$; $-NR^{13}NR^{14}R^{15}$; $-CO_2R^{13}$; -OM; $-SO_2OM$; $-SO_2NR^{13}R^{14}$; $-C(O)NR^{13}R^{14}$; $-C(O)OM$; $-COR^{13}$; $-NR^{13}C(O)R^{14}$; $-NR^{13}C(O)NR^{14}R^{15}$; $-NR^{13}CO_2R^{14}$; $-OC(O)R^{13}$; $-OC(O)NR^{13}R^{14}$; $-NR^{13}SOR^{14}$; $-NR^{13}SO_2R^{14}$; $-NR^{13}SONR^{14}R^{15}$; $-NR^{13}SO_2NR^{14}R^{15}$; $-PR^{13}R^{14}$; $-P(O)R^{13}R^{14}$; $-P^+R^{13}R^{14}R^{15}A^-$; $-P(OR^{13})OR^{14}$; $-S^+R^{13}R^{14}A^-$; and $-N^+R^{13}R^{14}R^{15}A^-$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^4 radical optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy, alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; $-OR^7$; $-NR^7R^8$; $-SR^7$; $-S(O)R^7$; $-SO_2R^7$; $-SO_3R^7$; $-CO_2R^7$; $-CONR^7R^8$; $-N^+R^7R^8R^9A^-$; $-P(O)R^7R^8$; $-PR^7R^8$; $-P^+R^7R^8R^9A^-$; and $-P(O)(OR^7)OR^8$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of

the R^4 radical optionally may have one or more carbons replaced by $-O-$; $-NR^7-$; $-N^+R^7R^8A^-$; $-S-$; $-SO-$; $-SO_2-$; $-S^+R^7A^-$; $-PR^7-$; $-P(O)R^7-$; $-P^+R^7R^8A^-$; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 , R^{10} , and R^W are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylammoniumalkyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; $-CN$; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; $-OR^9$; $-NR^9R^{10}$; $-SR^9$; $-S(O)R^9$; $-SO_2R^9$; $-SO_3R^9$; $-CO_2R^9$; and $-CONR^9R^{10}$; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -N⁺R⁹R¹¹R¹²A⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

83. (Currently Amended) A compound of claim 77 wherein:

R^3 is selected from the group consisting of hydrogen; alkyl; cycloalkyl; aryl; heterocyclyl; acyl, thioacyl, and $-OR^9$;

wherein the R^3 alkyl; cycloalkyl; aryl; heterocyclyl radical is substituted with one or more radicals independently selected from the group consisting of halogen; $-CN$; $-NO_2$; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; $-OR^{13}$; $-NR^{13}R^{14}$; $-SR^{13}$; $-S(O)R^{13}$; $-SO_2R^{13}$; $-SO_3R^{13}$; $-NR^{13}OR^{14}$; $-NR^{13}NR^{14}R^{15}$; $-CO_2R^{13}$; $-OM$; $-SO_2OM$; $-SO_2NR^{13}R^{14}$; $-C(O)NR^{13}R^{14}$; $-C(O)OM$; $-COR^{13}$; $-NR^{13}C(O)R^{14}$; $-NR^{13}C(O)NR^{14}R^{15}$; $-NR^{13}CO_2R^{14}$; $-OC(O)R^{13}$; $-OC(O)NR^{13}R^{14}$; $-NR^{13}SOR^{14}$; $-NR^{13}SO_2R^{14}$; $-NR^{13}SONR^{14}R^{15}$; $-NR^{13}SO_2NR^{14}R^{15}$; $-PR^{13}R^{14}$; $-P(O)R^{13}R^{14}$; $-P^+R^{13}R^{14}R^{15}A^-$; $-P(OR^{13})OR^{14}$; $-S^+R^{13}R^{14}A^-$; and $-N^+R^{13}R^{14}R^{15}A^-$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^3 radical optionally may be further substituted with one or more radicals selected from the group consisting of $-CN$; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; $-OR^7$; $-NR^7R^8$; $-SR^7$; $-S(O)R^7$; $-SO_2R^7$; $-SO_3R^7$; $-CO_2R^7$; $-CONR^7R^8$; $-N^+R^7R^8R^9A^-$; $-P(O)R^7R^8$; $-PR^7R^8$; $-P^+R^8R^9A^-$; and $-P(O)(OR^7)OR^8$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^3 radical optionally may have one or more carbons replaced by $-O-$; $-NR^7-$; $-N^+R^7R^8A^-$; $-S-$; $-SO-$; $-SO_2-$; $-S^+R^7A^-$; $-PR^7-$; $-P(O)R^7-$; $-P^+R^7R^8A^-$; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 , R^{10} , and R^W are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; ~~alkylammoniumalkyl~~ alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylkyl; alkylheterocyclylalkyl; ~~alkylammoniumalkyl~~ alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylkyl; alkylheterocyclylalkyl; ~~alkylammoniumalkyl~~ alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl;

guanidinyl; $-\text{OR}^{16}$; $-\text{NR}^9\text{R}^{10}$; $-\text{N}^+\text{R}^9\text{R}^{10}\text{R}^w\text{A}^-$; $-\text{N}^+\text{R}^9\text{R}^{11}\text{R}^{12}\text{A}^-$; $-\text{SR}^{16}$; $-\text{S}(\text{O})\text{R}^9$; $-\text{SO}_2\text{R}^9$; $-\text{SO}_3\text{R}^{16}$; $-\text{CO}_2\text{R}^{16}$; $-\text{CONR}^9\text{R}^{10}$; $-\text{SO}_2\text{NR}^9\text{R}^{10}$; $-\text{PO}(\text{OR}^{16})\text{OR}^{17}$; $-\text{PR}^9\text{R}^{10}$; $-\text{P}^+\text{R}^9\text{R}^{10}\text{R}^{11}\text{A}^-$; $-\text{S}^+\text{R}^9\text{R}^{10}\text{A}^-$; and carbohydrate residue;

wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with $\text{N}^+\text{R}^9\text{R}^{11}\text{R}^{12}\text{A}^-$; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by $-\text{O}-$; $-\text{NR}^9-$; $-\text{N}^+\text{R}^9\text{R}^{10}\text{A}^-$; $-\text{S}-$; $-\text{SO}-$; $-\text{SO}_2-$; $-\text{S}^+\text{R}^9\text{A}^-$; $-\text{PR}^9-$; $-\text{P}^+\text{R}^9\text{R}^{10}\text{A}^-$; $-\text{P}(\text{O})\text{R}^9-$; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R^{16} and R^{17} are independently selected from the group consisting of R^9 and M ; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

R^4 is R^5 .

84. (Currently Amended) A compound of claim 77 wherein:

R^{19} is independently selected from the group consisting of $-\text{OR}^{13}$, $-\text{NR}^{13}\text{R}^{14}$, $-\text{NR}^{13}\text{C}(\text{O})\text{R}^{14}$, $-\text{OC}(\text{O})\text{NR}^{13}\text{R}^{14}$, and $-\text{NR}^{13}\text{SO}_2\text{R}^{14}$, and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylammoniumalkyl alkylaminoalkyl,

wherein alkyl optionally has one or more carbons replaced by O or $\text{N}^+\text{R}^9\text{R}^{10}\text{A}^-$, and

wherein R^{13} , R^{14} , and R^{15} are optionally substituted with one or more groups selected from the group consisting of hydroxy, carboxy, alkyl, quaternary heterocyclalkyl, $-SR^9$, $-S(O)R^9$, $-S(O)_2R^9$, $-S(O)_3R^9$, $-NR^9R^{10}$, $-N^+R^9R^{11}R^{12}A^-$, $-CONR^9R^{10}$, and $-PO(OR^{16})OR^{17}$, and

wherein R^9 and R^{10} are independently selected from the group consisting of hydrogen, alkyl, heterocyclalkyl, carboxyalkyl, carboalkoxyalkyl, and carboxyalkylheterocyclyl; and wherein R^{11} and R^{12} are independently alkyl; and

wherein A^- is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

85. (Previously amended) A compound of claim 77 wherein:

R^{19} is independently selected from the group consisting of $-OR^{13}$, $-NR^{13}R^{14}$, $-NR^{13}C(O)R^{14}$, $-OC(O)NR^{13}R^{14}$, and $-NR^{13}SO_2R^{14}$, and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclalkyl, quaternary heterocyclalkyl, and alkylheterocyclalkyl,

wherein alkyl optionally has one or more carbons replaced by O or $N^+R^9R^{10}A^-$, and

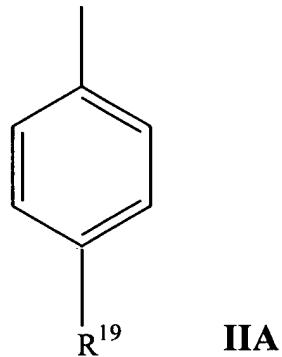
wherein R^{13} , R^{14} , and R^{15} are optionally substituted with one or more groups selected from the group consisting of hydroxy, carboxy, alkyl, quaternary heterocyclalkyl, $-SR^9$, $-S(O)R^9$, $-S(O)_2R^9$, $-S(O)_3R^9$, $-NR^9R^{10}$, $-N^+R^9R^{11}R^{12}A^-$, $-CONR^9R^{10}$, and $-PO(OR^{16})OR^{17}$, and

wherein R^9 and R^{10} are independently selected from the group consisting of hydrogen, alkyl, heterocyclalkyl, carboxyalkyl, carboalkoxyalkyl, and carboxyalkylheterocyclyl; and

wherein R^{11} and R^{12} are independently alkyl; and

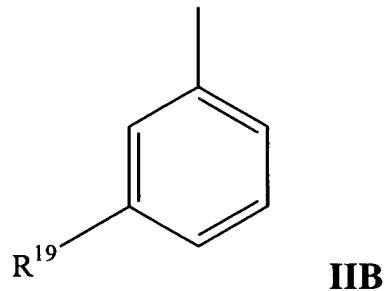
wherein A^- is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

86. (original) A compound of claim 84 wherein R^5 is:



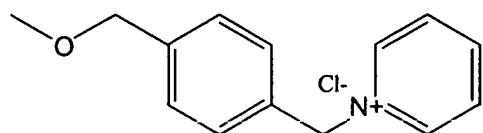
wherein R^{19} is as defined in Claim 84.

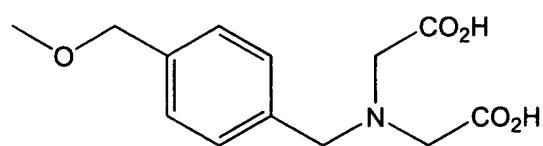
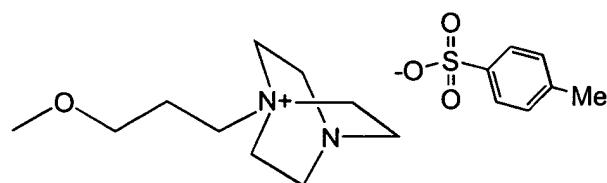
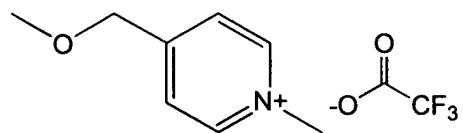
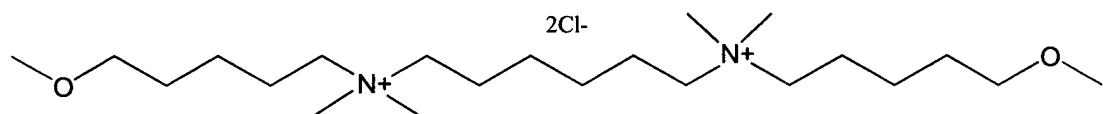
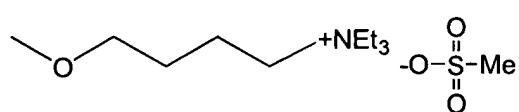
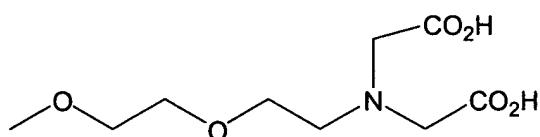
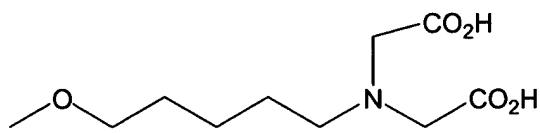
87. (original) A compound of claim 84 wherein R^5 is:

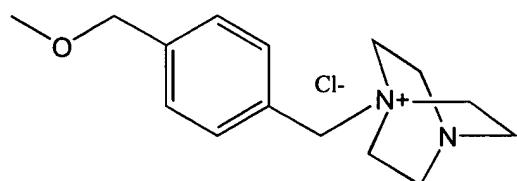
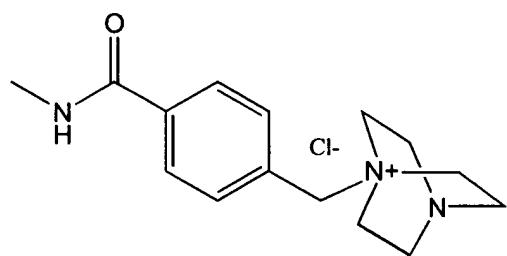
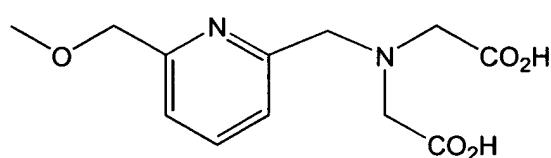
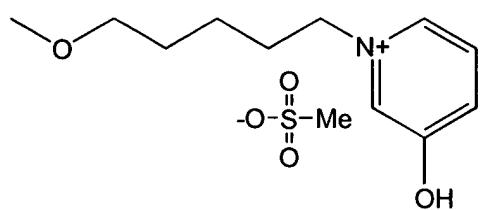
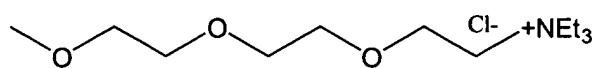
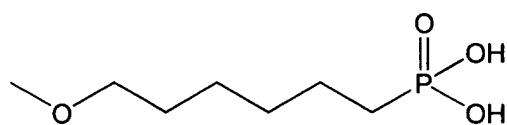


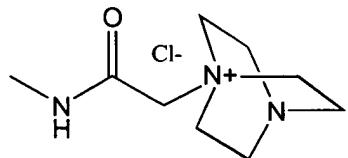
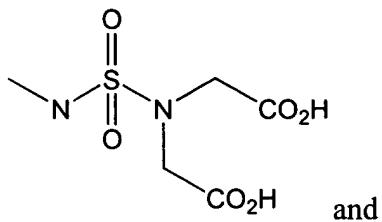
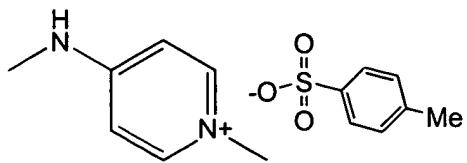
wherein R^{19} is as defined in Claim 84.

88. (Currently Amended) A compound of claim 77 wherein R^{19} is selected from the group consisting of:









89. (original) A compound of claim 84 wherein:

j is 2;

R^{1A} and R^{1B} are independently selected from hydrogen and alkyl; and

R^{2A} and R^{2B} are independently selected from hydrogen and alkyl.

90. (original) A compound of claim 84 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen; and

R^{2A} and R^{2B} are independently selected from alkyl.

91. (original) A compound of claim 84 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen; and

R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl.

92. (original) A compound of claim 84 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen;

R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl;

R^3 is R^5 ; and

R^4 is selected from hydrogen and alkyl.

93. (original) A compound of claim 84 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen;

R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl;

R^3 is selected from from hydrogen and alkyl; and

R^4 is R^5 .

94. (original) A compound of claim 84 wherein j is 1 or 2.

95. (original) A compound of claim 84 wherein j is 2.

96. (original) A compound of claim 84 wherein R^{1A} and R^{1B} are hydrogen.

97. (original) A compound of claim 84 wherein R^{2A} and R^{2B} are independently selected from the group consisting of hydrogen and C_{1-6} alkyl.

98. (original) A compound of claim 84 wherein R^{2A} and R^{2B} are independently selected from the group consisting C_{1-6} alkyl.

99. (original) A compound of claim 84 wherein R^{2A} and R^{2B} are the same alkyl.

100. (original) A compound of claim 84 wherein R^{2A} and R^{2B} are each n-butyl.

101. (original) A compound of claim 84 wherein one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl.

102. (original) A compound of claim 84 wherein one or more R^6 are independently selected from methoxy and dimethylamino.

103. (original) A compound of claim 84 wherein
 j is 1 or 2;
 R^{1A} and R^{1B} are hydrogen;
 R^{2A} and R^{2B} are n-butyl; and
one or more R^6 are independently selected from methoxy and dimethylamino.

104. (original) A compound of claim 84 wherein
 j is 1 or 2;
 R^{1A} and R^{1B} are hydrogen;
one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl; and
one or more R^6 are independently selected from methoxy and dimethylamino.

105. (original) A compound of claim 88 wherein:
 j is 2;
 R^{1A} and R^{1B} are independently selected from hydrogen and alkyl; and
 R^{2A} and R^{2B} are independently selected from hydrogen and alkyl.

106. (original) A compound of claim 88 wherein:
 j is 2;
 R^{1A} and R^{1B} are hydrogen; and
 R^{2A} and R^{2B} are independently selected from alkyl.

107. (original) A compound of claim 88 wherein:
j is 2;
 R^{1A} and R^{1B} are hydrogen; and
 R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl.

108. (original) A compound of claim 88 wherein:
j is 2;
 R^{1A} and R^{1B} are hydrogen;
 R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl;
 R^3 is R^5 ; and
 R^4 is selected from hydrogen and alkyl.

109. (original) A compound of claim 88 wherein:
j is 2;
 R^{1A} and R^{1B} are hydrogen;
 R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl;
 R^3 is selected from hydrogen and alkyl; and
 R^4 is R^5 .

110. (original) A compound of claim 88 wherein j is 1 or 2.

111. (original) A compound of claim 88 wherein j is 2.

112. (original) A compound of claim 88 wherein R^{1A} and R^{1B} are hydrogen.

113. (original) A compound of claim 88 wherein R^{2A} and R^{2B} are independently selected from the group consisting of hydrogen and C_{1-6} alkyl.

114. (original) A compound of claim 88 wherein R^{2A} and R^{2B} are independently selected from the group consisting C₁₋₆alkyl.

115. (original) A compound of claim 88 wherein R^{2A} and R^{2B} are the same alkyl.

116. (original) A compound of claim 88 wherein R^{2A} and R^{2B} are each n-butyl.

117. (original) A compound of claim 88 wherein one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl.

118. (original) A compound of claim 88 wherein one or more R⁶ are independently selected from methoxy and dimethylamino.

119. (original) A compound of claim 88 wherein

j is 1 or 2;

R^{1A} and R^{1B} are hydrogen;

R^{2A} and R^{2B} are n-butyl; and

one or more R⁶ are independently selected from methoxy and dimethylamino.

120. (original) A compound of claim 88 wherein

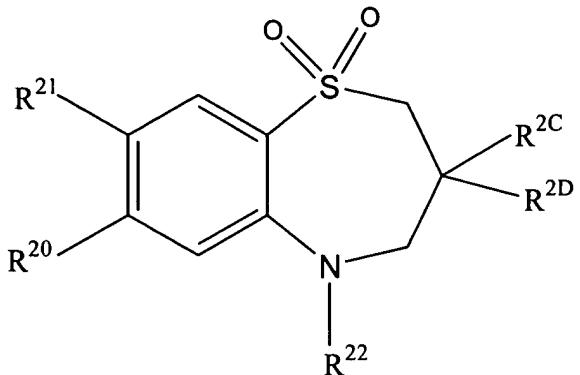
j is 1 or 2;

R^{1A} and R^{1B} are hydrogen;

one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl; and

one or more R⁶ are independently selected from methoxy and dimethylamino.

121. (Currently Amended) A compound of Formula III:



wherein:

R^{2C} and R^{2D} are independently selected from C_{1-6} alkyl; and

R^{20} is selected from the group consisting of halogen and R^{23} ;

R^{21} is selected from the group consisting of hydroxy, alkoxy, and R^{23} ; and

wherein R^{23} is aryl substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; and -N⁺R¹³R¹⁴R¹⁵A⁻; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclalkyl, and polyether substituents of the R^{23} aryl optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A⁻; -P(O)R⁷R⁸; -PR⁷R⁸; -P⁺R⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R²³ aryl optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R⁹; and R¹⁰ are independently selected from R^w and carboxyalkylheterocycle;

wherein , and R^w is are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylammoniumalkyl alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -N⁺R⁹R¹¹R¹²A⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

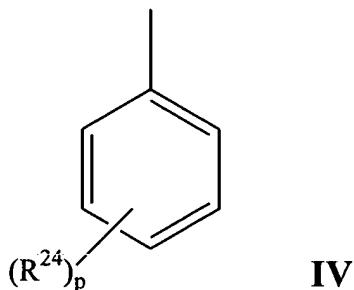
wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A⁻ is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

R²² is unsubstituted phenyl or R²³; or

a pharmaceutically acceptable salt or solvate thereof;
provided that at least one of R^{20} , R^{21} and R^{22} is R^{23} .

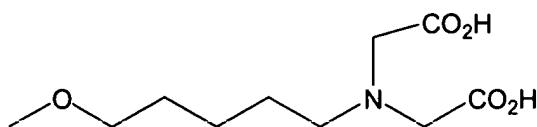
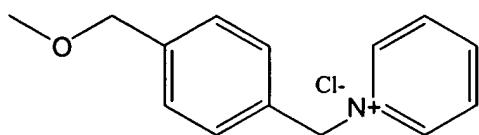
122. (Currently Amended) A compound of Claim 121 wherein R^{23} is:

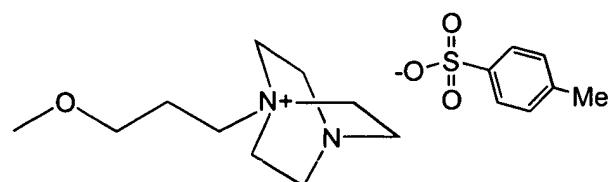
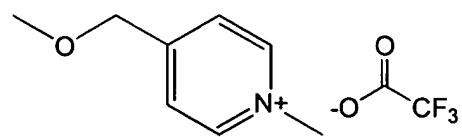
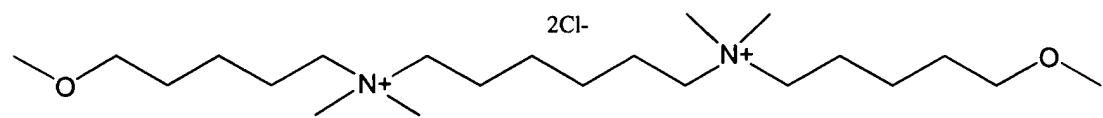
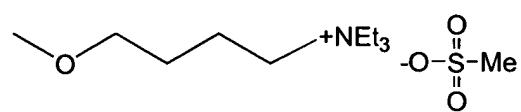
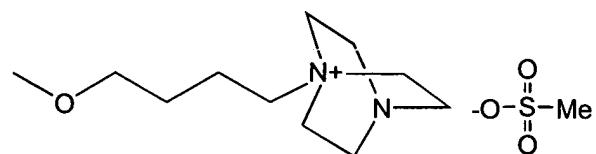
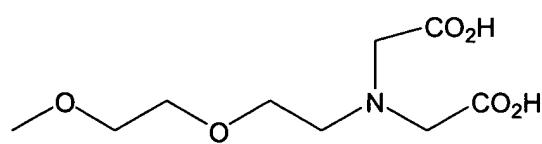


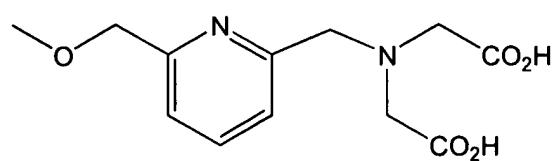
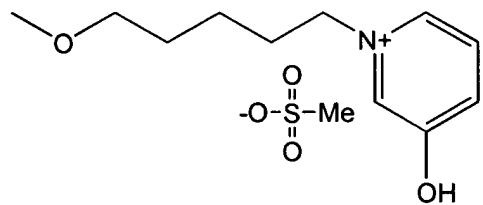
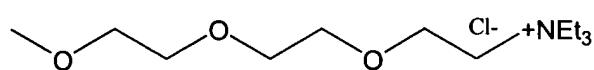
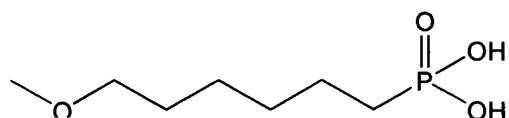
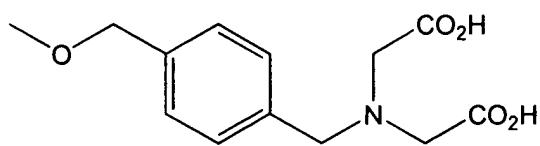
wherein

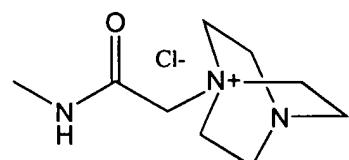
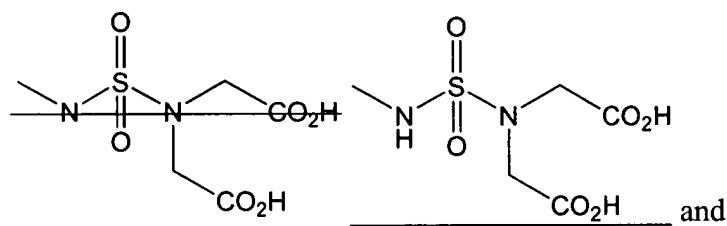
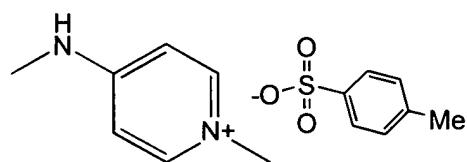
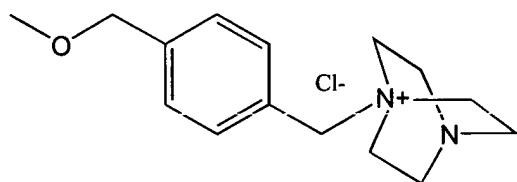
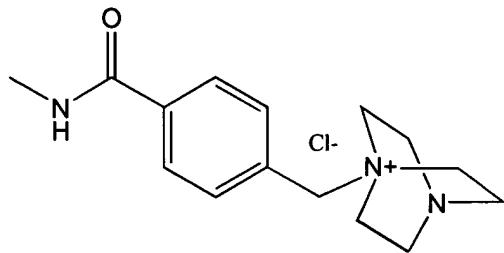
p is 1, 2, 3 or 4; and

one or more R^{24} are independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; -N⁺R¹³R¹⁴R¹⁵A⁻; and









wherein the R^{24} alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether radicals optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸A⁻; -P(O)R⁷R⁸; -PR⁷R⁸; -P⁺R⁷R⁸A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the R^{24} alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻-; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻-; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻-; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 ; and R^{10} are independently selected from R^w and carboxyalkylheterocycle;

wherein , and R^w is are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylammoniumalkyl alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary

heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -N⁺R⁹R¹¹R¹²A⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

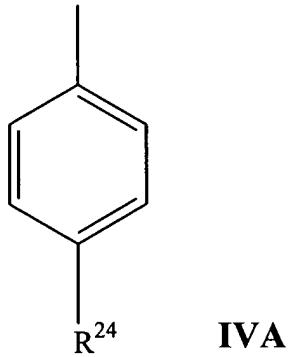
wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹

$R^{10}A^-$; $-S-$; $-SO-$; $-SO_2-$; $-S^+R^9A^-$; $-PR^9-$; $-P^+R^9R^{10}A^-$; $-P(O)R^9-$; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R^{16} and R^{17} are independently selected from the group consisting of R^9 and M ; and

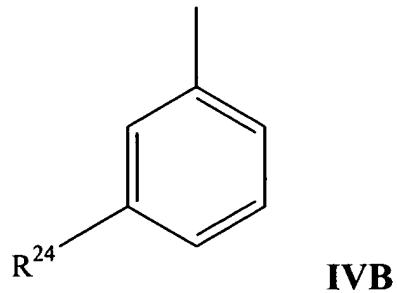
wherein A^- is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

123. (original) A compound of claim 122 wherein R^{23} is:



wherein R^{24} is as defined in Claim 122.

124. (original) A compound of claim 122 wherein R^{23} is:



wherein R^{24} is as defined in Claim 122.

125. (Currently Amended) A compound of claim 122 wherein:

R^{24} is independently selected from the group consisting of $-OR^{13}$, $-NR^{13}R^{14}$, $-NR^{13}C(O)R^{14}$, $-OC(O)NR^{13}R^{14}$, and $-NR^{13}SO_2R^{14}$, and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylammoniumalkyl alkylaminoalkyl,

wherein alkyl optionally has one or more carbons replaced by O or $N^+R^9R^{10}A^-$, and

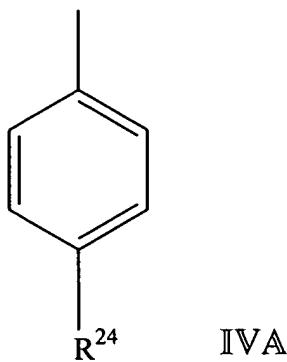
wherein R^{13} , R^{14} , and R^{15} are optionally substituted with one or more groups selected from the group consisting of hydroxy, carboxy, alkyl, quaternary heterocyclylalkyl, $-SR^9$, $-S(O)R^9$, $-S(O)_2R^9$, $-S(O)_3R^9$, $-NR^9R^{10}$, $-N^+R^9R^{11}R^{12}A^-$, $-CONR^9R^{10}$, and $-PO(OR^{16})OR^{17}$, and

wherein R^9 and R^{10} are independently selected from the group consisting of hydrogen, alkyl, heterocyclylalkyl, carboxyalkyl, carboalkoxyalkyl, and carboxyalkylheterocyclyl; and

wherein R^{11} and R^{12} are independently alkyl; and

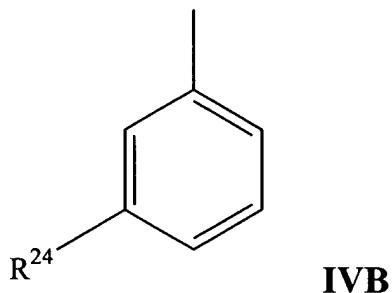
wherein A^- is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

126. (original) A compound of claim 125 wherein R^{23} is:



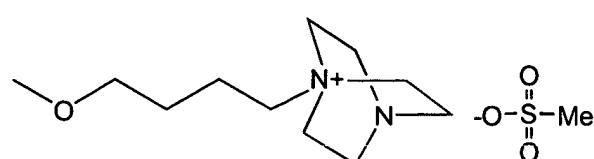
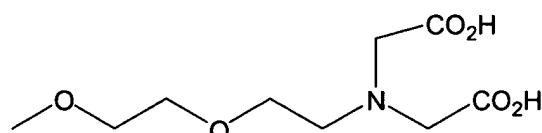
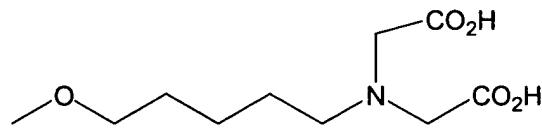
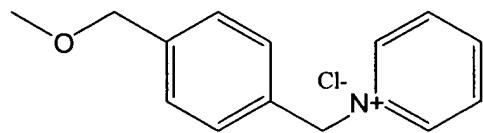
wherein R^{24} is as defined in Claim 125.

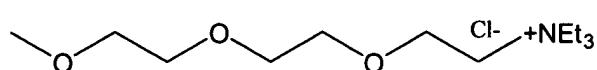
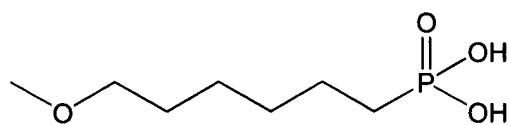
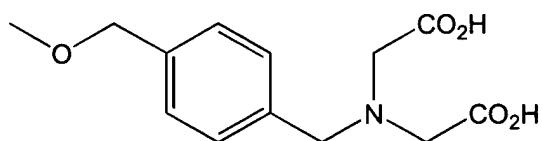
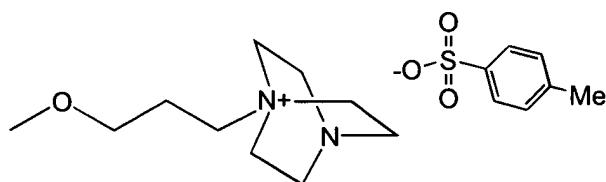
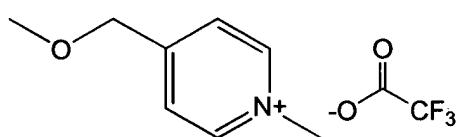
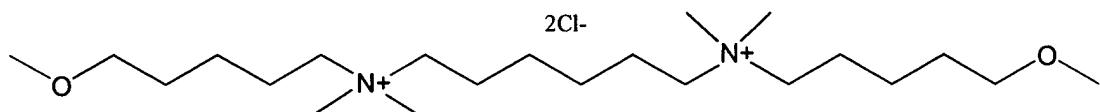
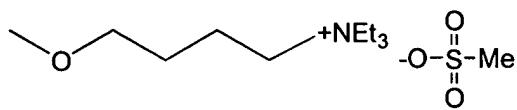
127. (original) A compound of claim 125 wherein R²³ is:

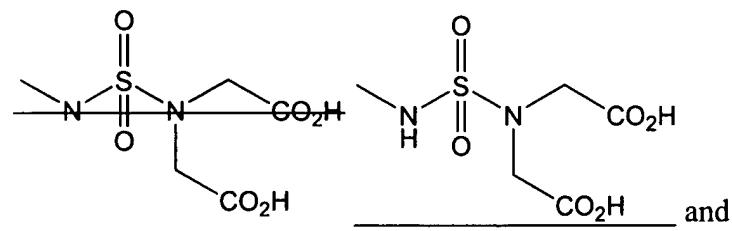
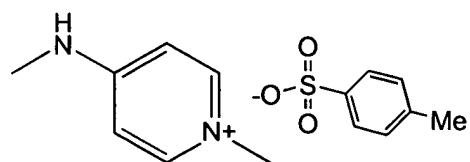
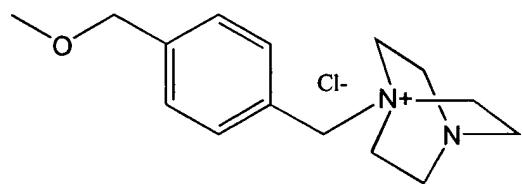
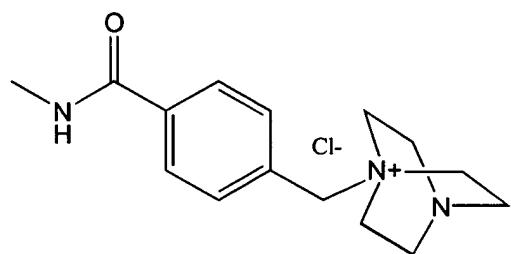
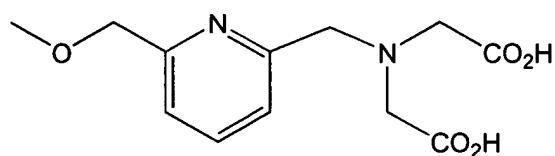
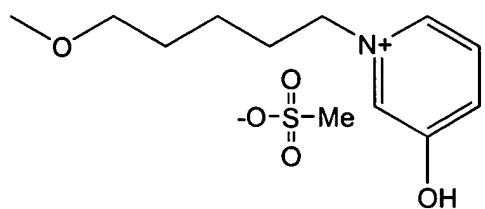


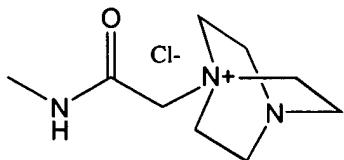
wherein R²⁴ is as defined in Claim 125.

128. (Currently Amended) A compound of claim 122 wherein R²⁴ is selected from the group consisting of:









129. (original) A compound of claim 122 wherein:
 R^{2C} and R^{2D} are independently selected from ethyl and n-butyl;
 R^{20} is chloro; and
 R^{21} is selected from the group consisting of hydroxy and methoxy.

130. (original) A compound of claim 122 wherein:
 R^{2C} and R^{2D} are n-butyl;
 R^{20} is chloro; and
 R^{21} is selected from the group consisting of hydroxy and methoxy.

131. (original) A compound of claim 122 wherein:
one of R^{2C} and R^{2D} is ethyl and the other of R^{2C} and R^{2D} is n-butyl;
 R^{20} is chloro; and
 R^{21} is selected from the group consisting of hydroxy and methoxy.

132. (original) A compound of claim 122 wherein R^{2C} and R^{2D} are the same alkyl.

133. (original) A compound of claim 122 wherein R^{2C} and R^{2D} are each n-butyl.

134. (original) A compound of claim 122 wherein one of R^{2C} and R^{2D} is ethyl and the other of R^{2C} and R^{2D} is n-butyl.

135. (original) A compound of claim 125 wherein:
 R^{2C} and R^{2D} are independently selected from ethyl and n-butyl;
 R^{20} is chloro; and

R^{21} is selected from the group consisting of hydroxy and methoxy.

136. (original) A compound of claim 125 wherein:

R^{2C} and R^{2D} are n-butyl;

R^{20} is chloro; and

R^{21} is selected from the group consisting of hydroxy and methoxy.

137. (original) A compound of claim 125 wherein:

one of R^{2C} and R^{2D} is ethyl and the other of R^{2C} and R^{2D} is n-butyl;

R^{20} is chloro; and

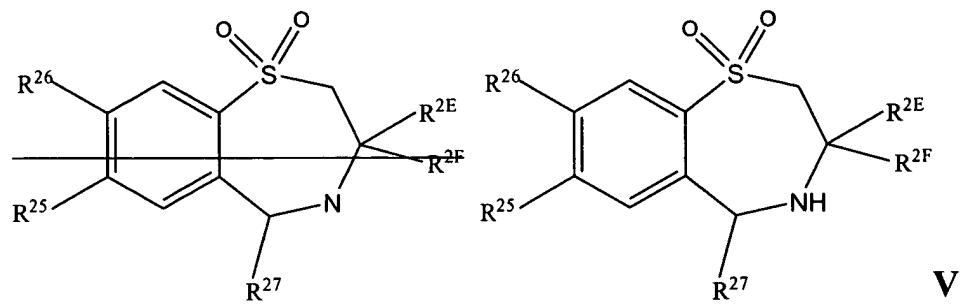
R^{21} is selected from the group consisting of hydroxy and methoxy.

138. (original) A compound of claim 125 wherein R^{2C} and R^{2D} are the same alkyl.

139. (original) A compound of claim 125 wherein R^{2C} and R^{2D} are each n-butyl.

140. (original) A compound of claim 125 wherein one of R^{2C} and R^{2D} is ethyl and the other of R^{2C} and R^{2D} is n-butyl.

141. (Currently Amended) A compound of Formula V:



wherein:

R^{2E} and R^{2F} are independently selected from C_{1-6} alkyl; and

R^{25} and R^{26} are independently selected from the group consisting of hydrogen, alkoxy, and R^{28} ;

wherein R^{28} is aryl substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; and -N⁺R¹³R¹⁴R¹⁵A⁻; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^{28} aryl optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A⁻; -P(O)R⁷R⁸; -PR⁷R⁸; -P⁺R⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^{28} aryl optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 ; and R^{10} are independently selected from R^w and carboxyalkylheterocycle;

wherein R^w is independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylammoniumalkyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -N⁺R⁹R¹¹R¹²A⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

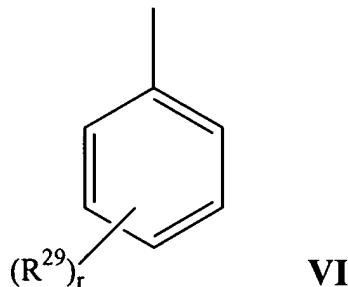
wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A⁻ is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

R²⁷ is unsubstituted phenyl or R²⁸; or
a pharmaceutically acceptable salt or solvate thereof;
provided that at least one of R²⁵, R²⁶ and R²⁷ is R²⁸.

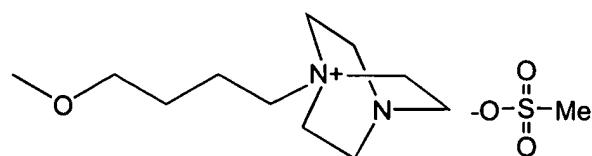
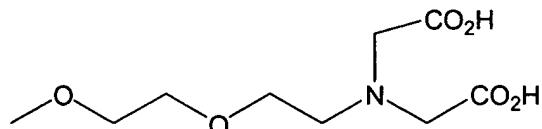
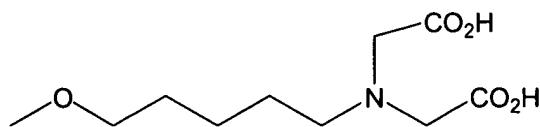
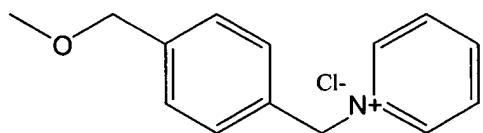
142. (Currently Amended) A compound of Claim 141 wherein R²⁸ is:

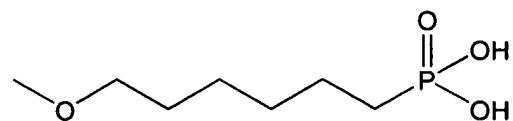
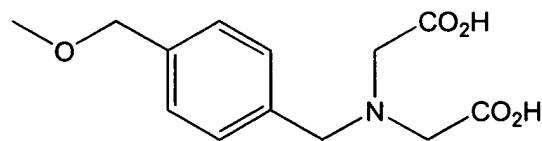
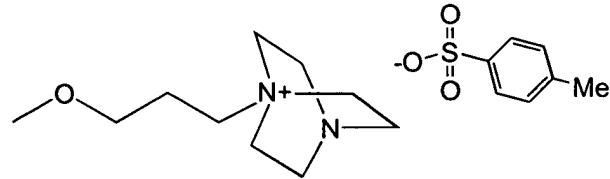
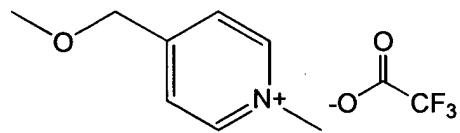
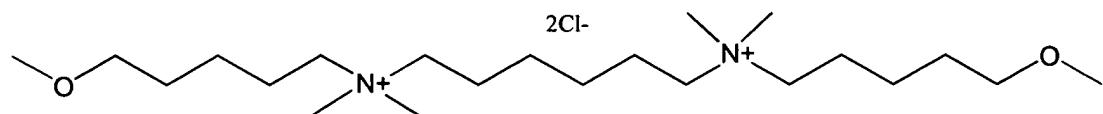
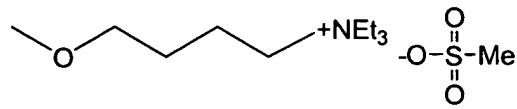


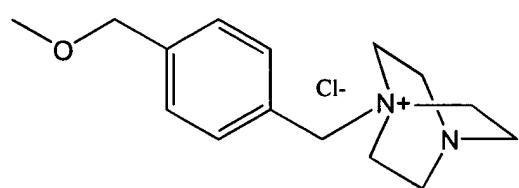
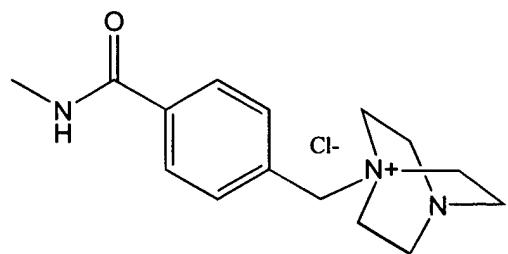
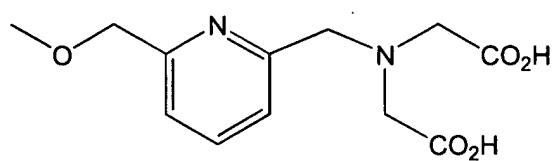
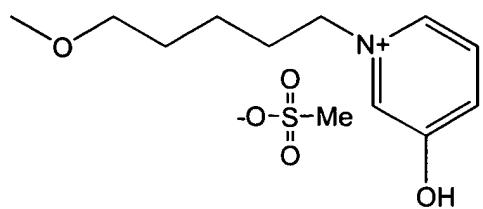
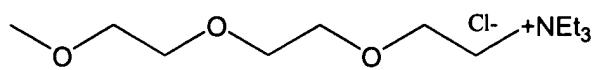
wherein

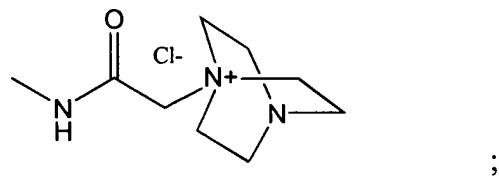
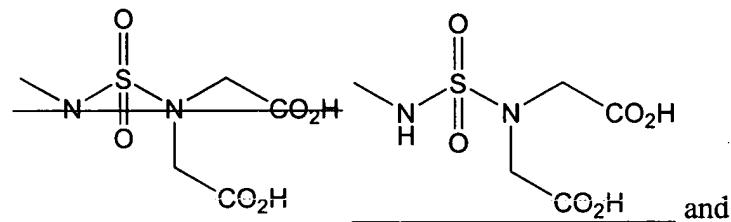
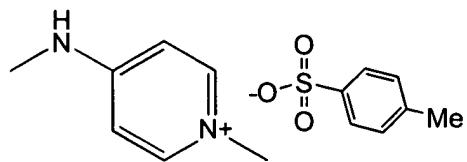
r is 1, 2, 3 or 4; and

one or more R^{29} are independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; -N⁺R¹³R¹⁴R¹⁵A⁻; and









wherein the R²⁹ alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether radicals optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A⁻; -P(O)R⁷R⁸; -PR⁷R⁸; -P⁺R⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the R²⁹ alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R⁹, and R¹⁰ are independently selected from R^w and carboxyalkylheterocycle;

wherein ,and R^w is are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylammoniumalkyl alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl;

and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA⁻; -N⁺R⁹R¹¹R¹²A⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

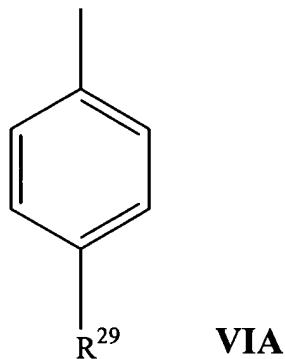
wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylammoniumalkyl alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

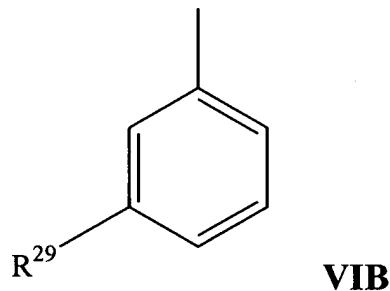
wherein A⁻ is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

143. (original) A compound of claim 142 wherein R²⁸ is:



wherein R²⁹ is as defined in Claim 142.

144. (original) A compound of claim 142 wherein R²⁸ is:



wherein R²⁹ is as defined in Claim 142.

145. (Currently Amended) A compound of claim 142 wherein:

R²⁹ is independently selected from the group consisting of -OR¹³, -NR¹³R¹⁴, -NR¹³C(O)R¹⁴, -OC(O)NR¹³R¹⁴, and -NR¹³SO₂R¹⁴, and
wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylammoniumalkyl alkylaminoalkyl,
wherein alkyl optionally has one or more carbons replaced by O or N⁺R⁹R¹⁰A⁻, and

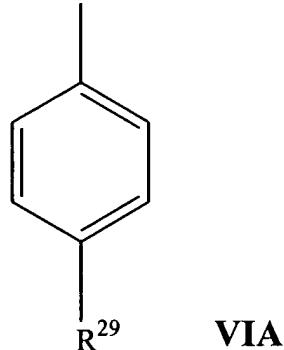
wherein R^{13} , R^{14} , and R^{15} are optionally substituted with one or more groups selected from the group consisting of hydroxy, carboxy, alkyl, quaternary heterocyclalkyl, $-SR^9$, $-S(O)R^9$, $-S(O)_2R^9$, $-S(O)_3R^9$, $-NR^9R^{10}$, $-N^+R^9R^{11}R^{12}A^-$, $-CONR^9R^{10}$, and $-PO(OR^{16})OR^{17}$, and

wherein R^9 and R^{10} are independently selected from the group consisting of hydrogen, alkyl, heterocyclalkyl, carboxyalkyl, carboalkoxyalkyl, and carboxyalkylheterocyclyl; and

wherein R^{11} and R^{12} are independently alkyl; and

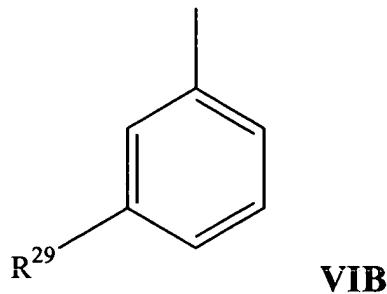
wherein A^- is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

146. (original) A compound of claim 145 wherein R^{28} is:



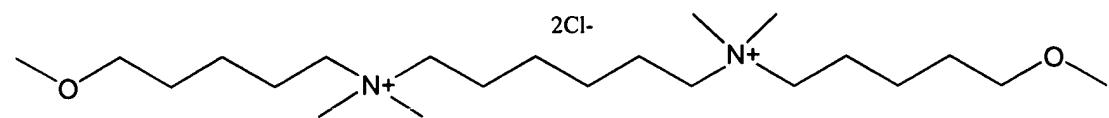
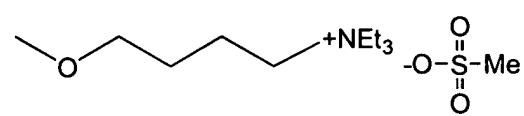
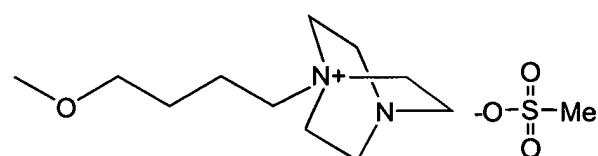
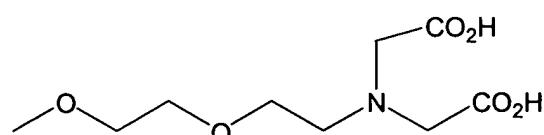
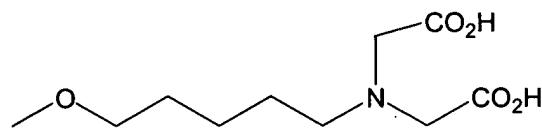
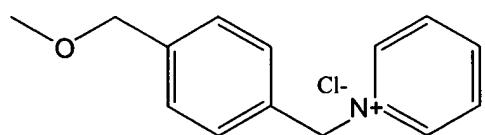
wherein R^{29} is as defined in Claim 145.

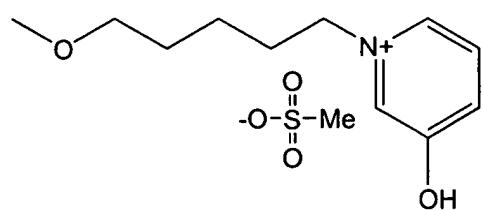
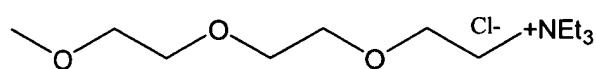
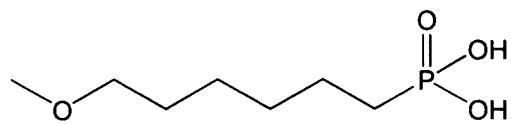
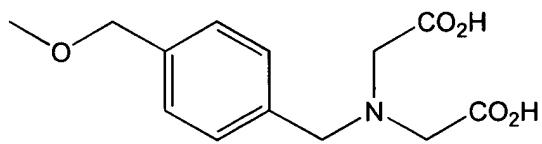
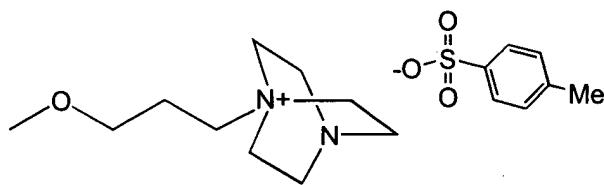
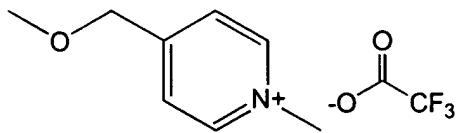
147. (original) A compound of claim 145 wherein R^{28} is:

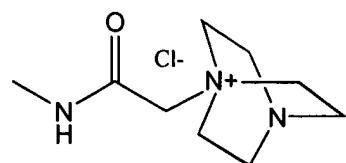
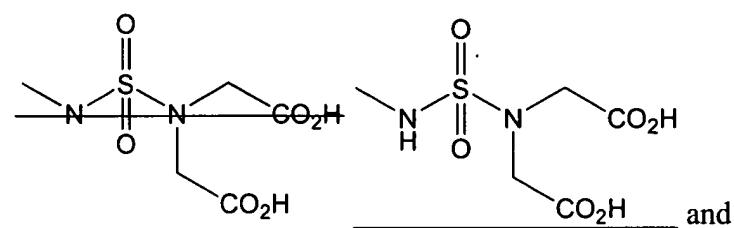
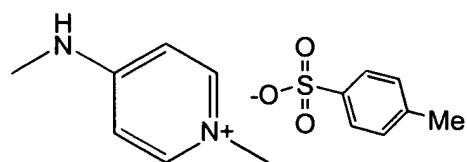
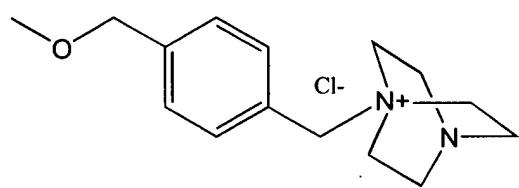
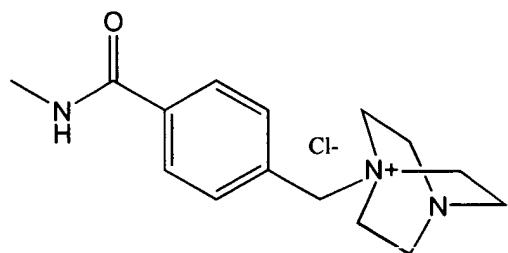
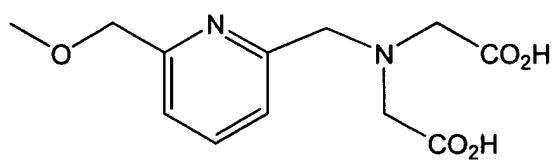


wherein R²⁹ is as defined in Claim 145.

148. (Currently Amended) A compound of claim 142 wherein R²⁹ is selected from the group consisting of:







149. (original) A compound of claim 142 wherein:
 R^{2E} and R^{2F} are independently selected from ethyl and n-butyl; and
 R^{25} and R^{26} are independently selected from hydrogen and methoxy.

150. (original) A compound of claim 142 wherein:
 R^{2E} and R^{2F} are n-butyl; and
 R^{25} and R^{26} are independently selected from hydrogen and methoxy.

151. (original) A compound of claim 142 wherein:
one of R^{2E} and R^{2F} is ethyl and the other of R^{2E} and R^{2F} is n-butyl; and
 R^{25} and R^{26} are independently selected from hydrogen and methoxy.

152. (original) A compound of claim 142 wherein R^{2E} and R^{2F} are the same alkyl.

153. (original) A compound of claim 142 wherein R^{2E} and R^{2F} are each n-butyl.

154. (original) A compound of claim 142 wherein one of R^{2E} and R^{2F} is ethyl and the other of R^{2E} and R^{2F} is n-butyl.

155. (original) A compound of claim 145 wherein:
 R^{2E} and R^{2F} are independently selected from ethyl and n-butyl; and
 R^{25} and R^{26} are independently selected from hydrogen and methoxy.

156. (original) A compound of claim 145 wherein:
 R^{2E} and R^{2F} are n-butyl; and
 R^{25} and R^{26} are independently selected from hydrogen and methoxy.

157. (original) A compound of claim 145 wherein:
one of R^{2E} and R^{2F} is ethyl and the other of R^{2E} and R^{2F} is n-butyl; and

R^{25} and R^{26} are independently selected from hydrogen and methoxy.

158. (original) A compound of claim 145 wherein R^{2E} and R^{2F} are the same alkyl.

159. (original) A compound of claim 145 wherein R^{2E} and R^{2F} are each n-butyl.

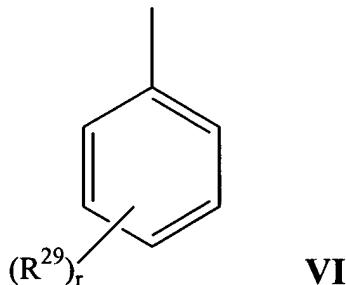
160. (original) A compound of claim 145 wherein one of R^{2E} and R^{2F} is ethyl and the other of R^{2E} and R^{2F} is n-butyl.

161. (original) A compound of claim 142 wherein:

one of R^{2E} and R^{2F} is ethyl and the other of R^{2E} and R^{2F} is n-butyl;

R^{25} and R^{26} are hydrogen; and

R^{27} is:



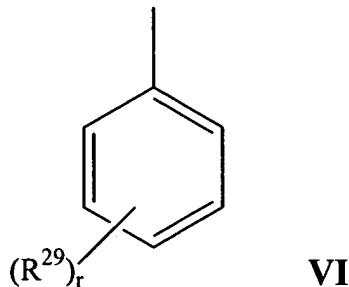
wherein r is 1 and R^{29} is as defined in claim 142.

162. (original) A compound of claim 142 wherein:

one of R^{2E} and R^{2F} is ethyl and the other of R^{2E} and R^{2F} is n-butyl; and

R^{25} and R^{26} are methoxy; and

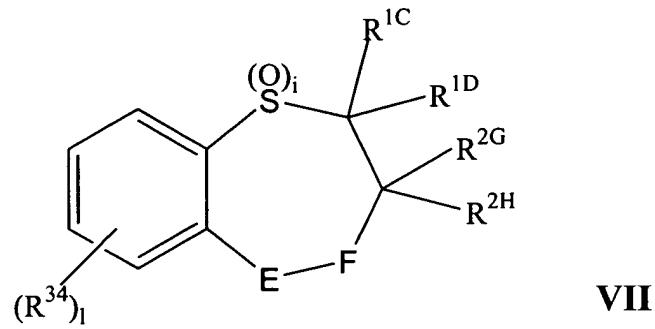
R^{27} is:



wherein r is 1 and R²⁹ is as defined in claim 142.

163-166 (Canceled)

167. (Currently Amended) A compound of Formula VII: claim 164



wherein:

i is 0, 1 or 2; and

l is 0, 1, 2, 3 or 4; and

R^{1C} and R^{1D} are independently selected from hydrogen and alkyl; and

R^{2G} and R^{2H} are independently selected from hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, aryl and aralkyl; or

R^{2G} and R^{2H} together with the carbon atom to which they are attached form a C₃₋₁₀ cycloalkyl group; and

one of E and F is NR³⁰ and the other of E and F is CHR³¹,

R³⁰ is R³²; and

R³¹ is selected from the group consisting of hydrogen and alkyl;

wherein the R³¹ alkyl radical is substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; and -N⁺R¹³R¹⁴R¹⁵A⁻; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R³¹ radical optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A⁻; -P(O)R⁷R⁸; -PR⁷R⁸; -P⁺R⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R³¹ radical optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R⁹, R¹⁰, and R^W are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxylalkyl; carboalkoxylalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxylalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN, alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

R³² is phenyl substituted with -N(H)-X-R³³ or -O-X-R³³ wherein:

X is selected from the group consisting of:

-(C=O)_s-alkyl-;
-(C=O)_s-alkyl-NH-;
-(C=O)_s-alkyl-O-;
-(C=O)_s-alkyl-(C=O)_t; and
a covalent bond;

R₃₃ is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides;

s and t are independently 0 or 1; and

one or more R³⁴ radicals are independently selected from the group consisting of R³², hydrogen; halogen; -CN; -NO₂; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxylalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; polyether; acyloxy; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -S(O)R¹³; -SO₃R¹³; -S⁺R¹³R¹⁴A⁻; -NR¹³

OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -NR¹⁴C(O)R¹³; -C(O)NR
13R¹⁴; -C(O)OM; -COR¹³; -OR¹⁸; -S(O)_nNR¹³R¹⁴; -NR¹³R¹⁸; -NR¹⁸OR¹⁴; -N⁺R¹³R¹⁴R
15A⁻; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; amino acid residue; peptide residue;
polypeptide residue; and carbohydrate residue;

wherein the R³⁴ alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy radicals optionally may be further substituted with one or more radicals selected from the group consisting of halogen; -CN; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹¹R¹²A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue; and

wherein the R³⁴ quaternary heterocyclyl radical optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; -NO₂; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -P(O)R¹³R¹⁴; -PR¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; -N⁺R¹³R¹⁴A⁻; and carbohydrate residue; and

wherein the R³⁴ radicals comprising carbon optionally may have one or more carbons replaced by -O-; -NR¹³-; -N⁺R¹³R¹⁴A⁻-; -S-; -SO-; -SO₂-; -S⁺R¹³A⁻-; -PR¹³-; -P(O)R¹³-; -PR¹³R¹⁴-; -P⁺R¹³R¹⁴A⁻-; phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; polyether; or polyalkyl; wherein said phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; and polyalkyl optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻-; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻-; -PR⁹-; -P⁺R⁹R¹⁰A⁻-; or -P(O)R⁹-; and

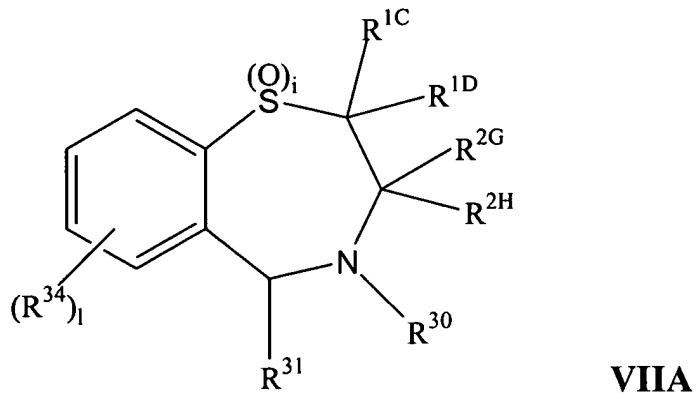
wherein R¹⁸ is selected from the group consisting of alkyl; alkenyl; alkynyl; aryl; heterocycll; quaternary heterocycll; arylalkyl; heterocyclalkyl; acyl; alkoxycarbonyl; arylalkoxycarbonyl; and heterocyclalkoxycarbonyl; and

wherein the R¹⁸ alkyl; alkenyl; alkynyl; aryl; heterocycll; quaternary heterocycll; arylalkyl; heterocyclalkyl; acyl; alkoxycarbonyl; arylalkoxycarbonyl; and heterocyclalkoxycarbonyl radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; NO₂; -OR⁹; -NR⁹R¹⁰; -N⁺R⁹R¹¹R¹²A⁻; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; -CONR⁹R¹⁰; -SO₂OM; -SO₂NR⁹R¹⁰; -PR⁹R¹⁰; -P(OR¹³)OR¹⁴; -PO(OR¹⁶)OR¹⁷; and -C(O)OM; or

a pharmaceutically acceptable salt or solvate thereof.

168-187 (Canceled)

188. (original) A compound of claim 185 corresponding to Formula VIIA:



wherein:

i is 0, 1 or 2; and

1 is 0, 1, 2, 3 or 4; and

R^{1C} and R^{1D} are independently selected from hydrogen and alkyl; and

R^{2G} and R^{2H} are independently selected from hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, aryl and aralkyl; or

R^{2G} and R^{2H} together with the carbon atom to which they are attached form a C_{3-7} cycloalkyl group; and

R^{30} is R^{32} ; and

R^{31} is selected from the group consisting of hydrogen and alkyl;
wherein the R^{31} alkyl radical is independently substituted with one or more radicals
independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl;
haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary
heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO
2R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -
C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -
OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -
PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; and -N⁺R¹³R¹⁴
R¹⁵A⁻; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl,
heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of
the R^{31} radical optionally may be further substituted with one or more radicals selected from the
group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl;
heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -
S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A⁻; -P(O)R⁷R⁸; -PR⁷R⁸; -P⁺R⁷
R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl,
heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of
the R^{30} and R^{31} radicals optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R
7R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen;
and alkyl; and

wherein R⁹, R¹⁰, and R^W are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl;

guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

R³² is phenyl substituted with -N(H)-X-R³³ or -O-X-R³³ wherein:

X is selected from the group consisting of:

-(C=O)_s-alkyl-;
-(C=O)_s-alkyl-NH-;
-(C=O)_s-alkyl-O-;
-(C=O)_s-alkyl-(C=O)_t; and
a covalent bond; and

R₃₃ is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides; and

s and t are independently 0 or 1; and

one or more R³⁴ radicals are independently selected from the group consisting of R³², hydrogen; halogen; -CN; -NO₂; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -S(O)2R¹³; -SO₃R¹³; -S⁺R¹³R¹⁴A⁻; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -NR¹⁴C(O)R¹³; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -OR¹⁸; -S(O)_nNR¹³R¹⁴; -NR¹³R¹⁸; -NR¹⁸OR¹⁴; -N⁺R¹³R¹⁴R¹⁵A⁻; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; amino acid residue; peptide residue; polypeptide residue; and carbohydrate residue;

wherein the R³⁴ alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy radicals optionally may be further substituted with one or more radicals selected from the group consisting of halogen; -CN; OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹¹R¹²A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue; and

wherein the R³⁴ quaternary heterocyclyl radical optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; -NO₂; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -P(O)R¹³R¹⁴; -PR¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; -N⁺R¹³R¹⁴R¹⁵A⁻; and carbohydrate residue; and

wherein the R³⁴ radicals comprising carbon optionally may have one or more carbons replaced by -O-; -NR¹³-; -N⁺R¹³R¹⁴A⁻; -S-; -SO-; -SO₂-; -S⁺R¹³A⁻; -PR¹³-; -P(O)R¹³-; -PR¹³R¹⁴; -P⁺R¹³R¹⁴A⁻; phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; polyether; or polyalkyl; wherein said phenylene; amino acid residue;

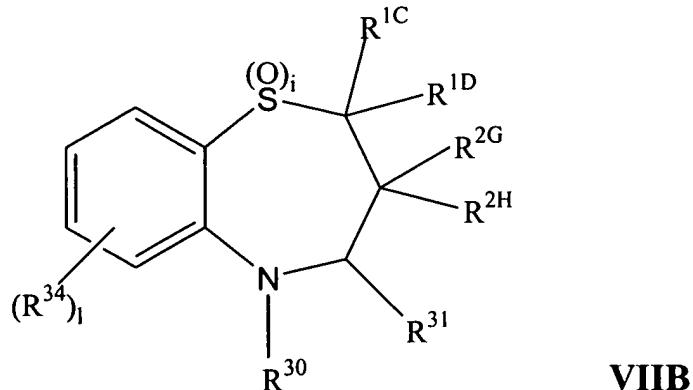
peptide residue; polypeptide residue; carbohydrate residue; and polyalkyl optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; or -P(O)R⁹-; and

wherein R¹⁸ is selected from the group consisting of alkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclylalkoxy carbonyl; and

wherein the R¹⁸ alkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclylalkoxy carbonyl radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; NO₂; -OR⁹; -NR⁹R¹⁰; -N⁺R⁹R¹¹R¹²A⁻; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; -CONR⁹R¹⁰; -SO₂OM; -SO₂NR⁹R¹⁰; -PR⁹R¹⁰; -P(O)R¹³OR¹⁴; -PO(O)R¹⁶OR¹⁷; and -C(O)OM; or a pharmaceutically acceptable salt or solvate thereof.

189-204 (Canceled).

205. (Currently Amended) A compound of claim 163 corresponding to Formula VIIIB:



wherein:

i is 0, 1 or 2; and

1 is 0, 1, 2, 3 or 4; and

R^{1C} and R^{1D} are independently selected from hydrogen and alkyl; and

R^{2G} and R^{2H} are independently selected from hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, aryl and aralkyl; or

R^{2G} and R^{2H} together with the carbon atom to which they are attached form a C_{3-7} cycloalkyl group; and

R^{30} and R^{31} are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; aryl; heterocyclyl; acyl, thioacyl, $-OR^9$, and R^{32} ;

wherein the R^{30} and R^{31} alkyl; cycloalkyl; aryl; heterocyclyl radicals are independently substituted with one or more radicals independently selected from the group consisting of halogen; $-CN$; $-NO_2$; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; $-OR^{13}$; $-NR^{13}R^{14}$; $-SR^{13}$; $-S(O)R^{13}$; $-SO_2R^{13}$; $-SO_3R^{13}$; $-NR^{13}OR^{14}$; $-NR^{13}NR^{14}R^{15}$; $-CO_2R^{13}$; $-OM$; $-SO_2OM$; $-SO_2NR^{13}R^{14}$; $-C(O)NR^{13}R^{14}$; $-C(O)OM$; $-COR^{13}$; $-NR^{13}C(O)R^{14}$; $-NR^{13}C(O)NR^{14}R^{15}$; $-NR^{13}CO_2R^{14}$; $-OC(O)R^{13}$; $-OC(O)NR^{13}R^{14}$; $-NR^{13}SOR^{14}$; $-NR^{13}SO_2R^{14}$; $-NR^{13}SONR^{14}R^{15}$; $-NR^{13}SO_2NR^{14}R^{15}$; $-PR^{13}R^{14}$; $-P(O)R^{13}R^{14}$; $-P^+R^{13}R^{14}R^{15}A^-$; $-P(OR^{13})OR^{14}$; $-S^+R^{13}R^{14}A^-$; and $-N^+R^{13}R^{14}R^{15}A^-$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^{30} and R^{31} radicals optionally may be further substituted with one or more radicals selected from the group consisting of $-CN$; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; $-OR^7$; $-NR^7R^8$; $-SR^7$; $-S(O)R^7$; $-SO_2R^7$; $-SO_3R^7$; $-CO_2R^7$; $-CONR^7R^8$; $-N^+R^7R^8R^9A^-$; $-P(O)R^7R^8$; $-PR^7R^8$; $-P^+R^7R^8R^9A^-$; and $-P(O)(OR^7)OR^8$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of

the R^{30} and R^{31} radicals optionally may have one or more carbons replaced by $-O-$; $-NR^7-$; $-N^+R^7R^8A^-$; $-S-$; $-SO-$; $-SO_2-$; $-S^+R^7A^-$; $-PR^7-$; $-P(O)R^7-$; $-P^+R^7R^8A^-$; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 , R^{10} , and R^W are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylammoniumalkyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; $-CN$; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; $-OR^9$; $-NR^9R^{10}$; $-SR^9$; $-S(O)R^9$; $-SO_2R^9$; $-SO_3R^9$; $-CO_2R^9$; and $-CONR^9R^{10}$; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylammoniumalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary

heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA⁻; -N⁺R⁹R¹¹R¹²A⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; ~~alkylammoniumalkyl alkylaminoalkyl~~; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

R³² is selected from the group consisting of cycloalkyl, aryl and heterocyclyl, wherein said cycloalkyl, aryl and heterocyclyl are substituted with -N(H)-X-R³³ or -O-X-R³³ and wherein:

X is selected from the group consisting of:

- (C=O)_s-alkyl-;
- (C=O)_s-alkyl-NH-;

-(C=O)_s-alkyl-O-;
-(C=O)_s-alkyl-(C=O); and
a covalent bond; and

R_{33} is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides, wherein said monosaccharides, disaccharides, and polysaccharides may be protected with one or more sugar protecting groups; and

s and t are independently 0 or 1; and

one or more R^{34} radicals are independently selected from the group consisting of R^{32} , hydrogen; halogen; -CN; -NO₂; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -S(O)2R¹³; -SO₃R¹³; -S⁺R¹³R¹⁴A⁻; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -NR¹⁴C(O)R¹³; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -OR¹⁸; -S(O)_nNR¹³R¹⁴; -NR¹³R¹⁸; -NR¹⁸OR¹⁴; -N⁺R¹³R¹⁴R¹⁵A⁻; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; amino acid residue; peptide residue; polypeptide residue; and carbohydrate residue;

wherein the R^{34} alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy radicals optionally may be further substituted with one or more radicals selected from the group consisting of halogen; -CN; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -P⁹R¹⁰ -PR⁹R¹⁰; -P⁺R⁹R¹¹R¹²A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue; and

wherein the R^{34} quaternary heterocyclyl radical optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; -NO₂; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM;

-COR¹³; -P(O)R¹³R¹⁴; -P¹³R¹⁴ -PR¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴
A⁻; -N⁺R¹³R¹⁴R¹⁵A⁻; and carbohydrate residue; and

wherein the R³⁴ radicals comprising carbon optionally may have one or more carbons replaced by -O-; -NR¹³-; -N⁺R¹³R¹⁴A⁻; -S-; -SO-; -SO₂-; -S⁺R¹³A⁻; -PR¹³-; -P(O)R¹³-; -PR¹³R¹⁴; -P⁺R¹³R¹⁴A⁻; phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; polyether; or polyalkyl; wherein said phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; and polyalkyl optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; or -P(O)R⁹-; and

wherein R¹⁸ is selected from the group consisting of alkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclylalkoxy carbonyl; and

wherein the R¹⁸ alkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclylalkoxy carbonyl radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; NO₂; -OR⁹; -NR⁹R¹⁰; -N⁺R⁹R¹¹R¹²A⁻; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; -CONR⁹R¹⁰; -SO₂OM; -SO₂NR⁹R¹⁰; -PR⁹R¹⁰; -P(OR¹³)OR¹⁴; -PO(OR¹⁶)OR¹⁷; and -C(O)OM; or

a pharmaceutically acceptable salt or solvate thereof;

provided that at least one of R³⁰, R³¹ and R³⁴ is R³².

206. (original) A compound of Claim 205 wherein R³² is phenyl substituted with -N(H)-X-R³³ or -O-X-R³³ wherein:

X is selected from the group consisting of:

-(C=O)_s-alkyl-;
-(C=O)_s-alkyl-NH-;

-(C=O)_s-alkyl-O-;
-(C=O)_s-alkyl-(C=O); and
a covalent bond; and

R₃₃ is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides; and

s and t are independently 0 or 1.

207. (original) A compound of Claim 206 wherein R³² is phenyl substituted at the para-position with -N(H)-X-R³³ or -O-X-R³³ wherein:

X is selected from the group consisting of:

-(C=O)_s-alkyl-;
-(C=O)_s-alkyl-NH-;
-(C=O)_s-alkyl-O-;
-(C=O)_s-alkyl-(C=O); and
a covalent bond; and

R³³ is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides; and

s and t are independently 0 or 1.

208. (original) A compound of Claim 206 wherein R³² is phenyl substituted at the meta-position with -N(H)-X-R³³ or -O-X-R³³ wherein:

X is selected from the group consisting of:

-(C=O)_s-alkyl-;
-(C=O)_s-alkyl-NH-;
-(C=O)_s-alkyl-O-;
-(C=O)_s-alkyl-(C=O); and
a covalent bond; and

R₃₃ is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides; and

s and t are independently 0 or 1.

209. (original) A compound of claim 206 wherein:

R^{30} is R^{32} ; and

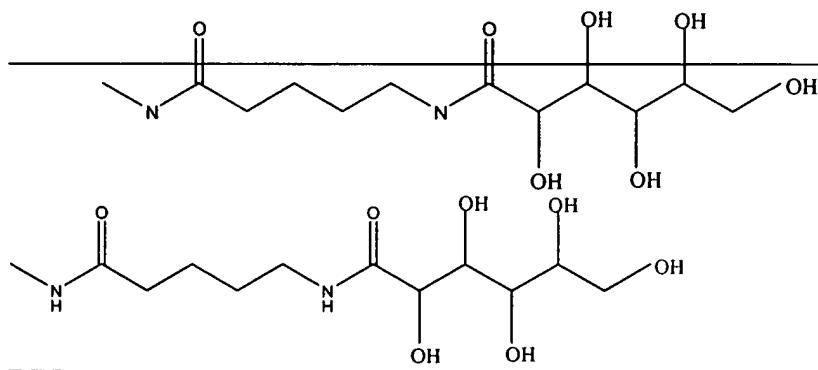
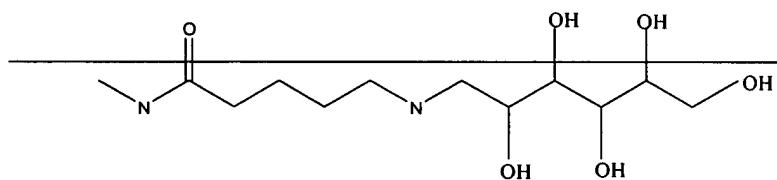
R^{31} is selected from the group consisting of hydrogen and alkyl.

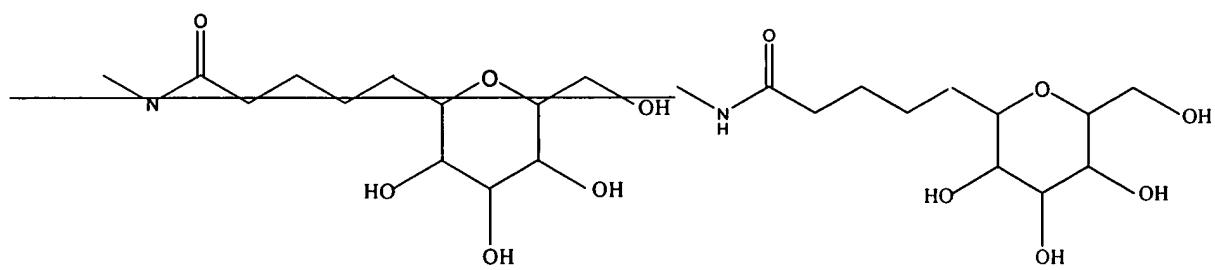
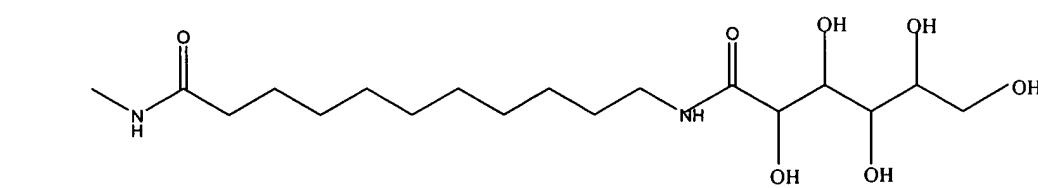
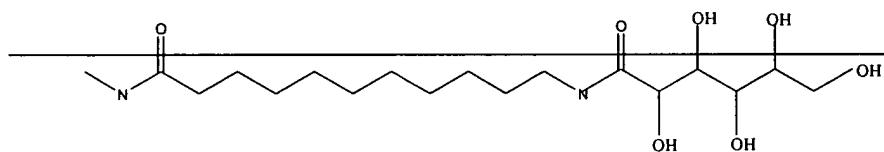
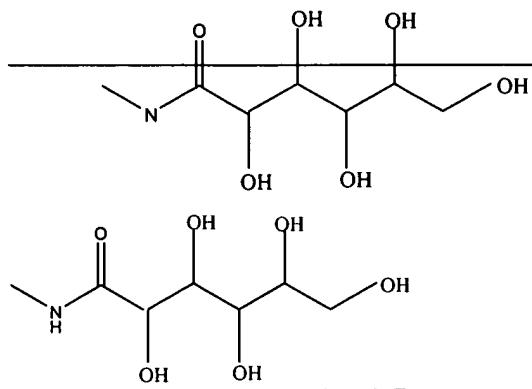
210. (original) A compound of claim 206 wherein:

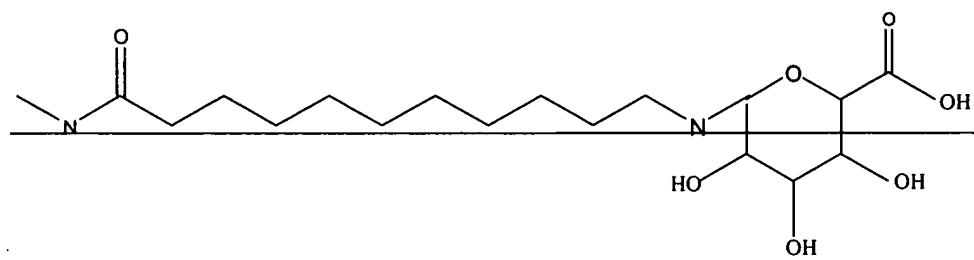
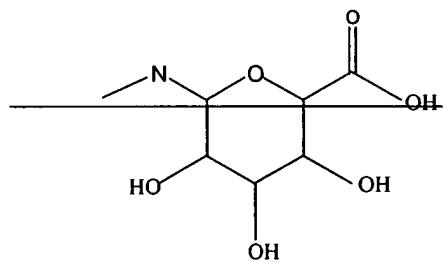
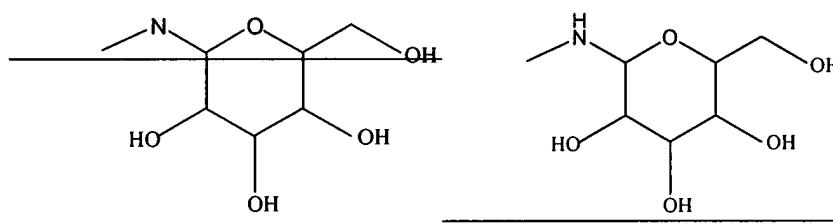
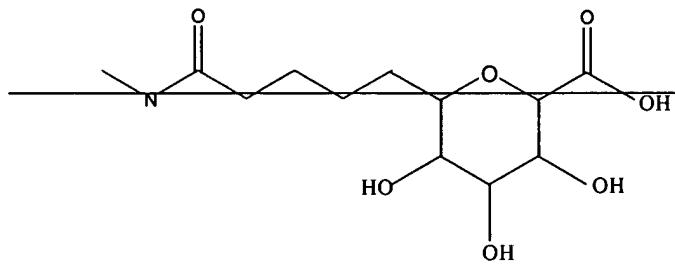
R^{30} is selected from the group consisting of hydrogen and alkyl; and

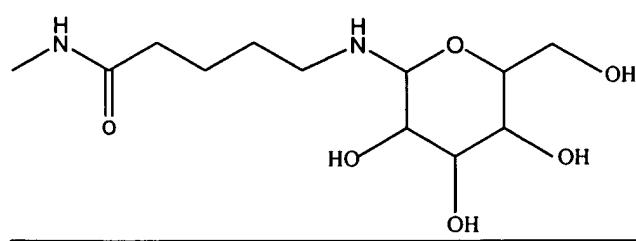
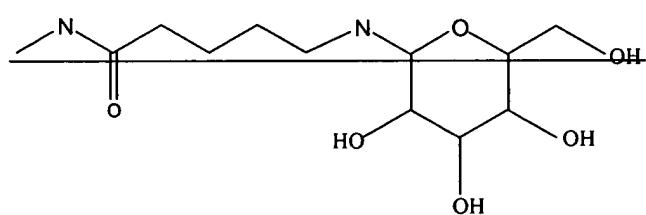
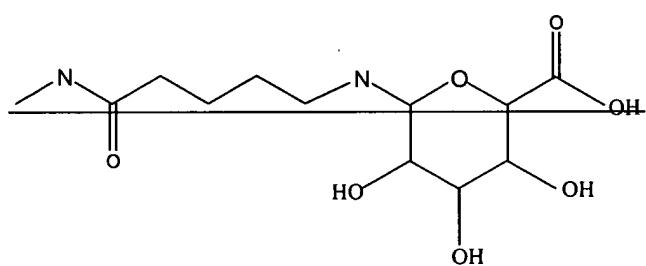
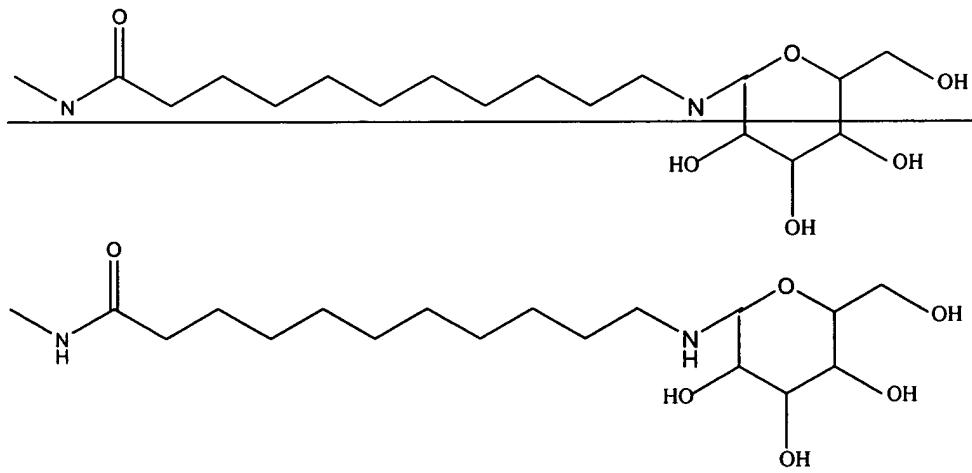
R^{31} is R^{32} .

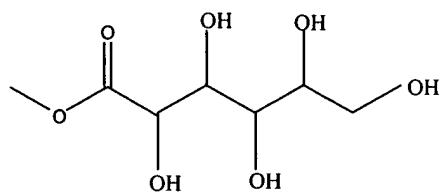
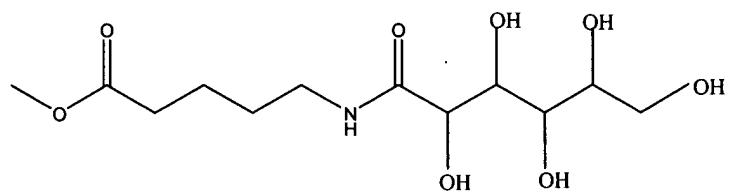
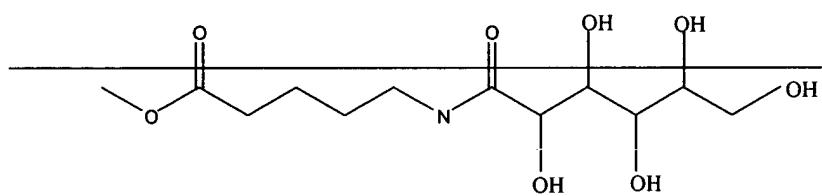
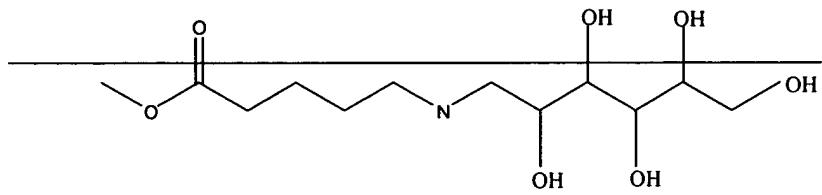
211. (Currently Amended) A compound of claim 206 wherein R^{32} is phenyl substituted with a radical selected from the group consisting of:

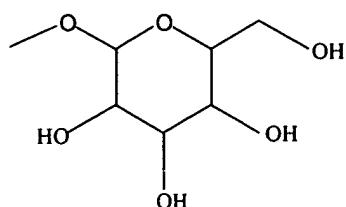
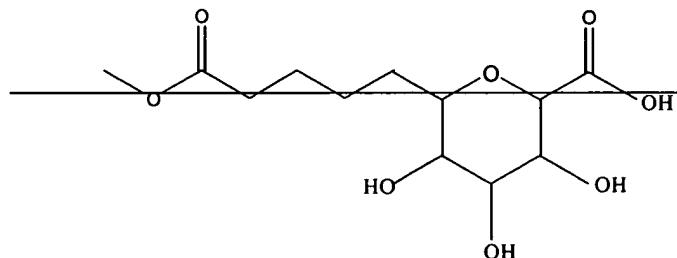
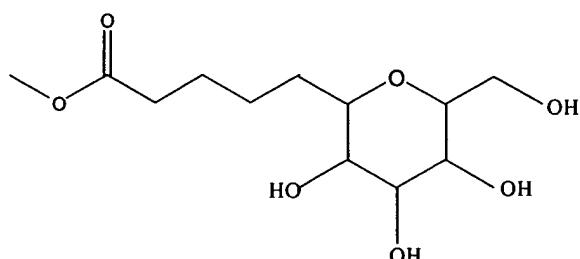
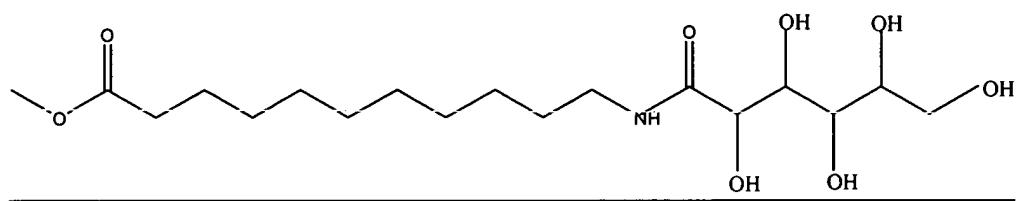
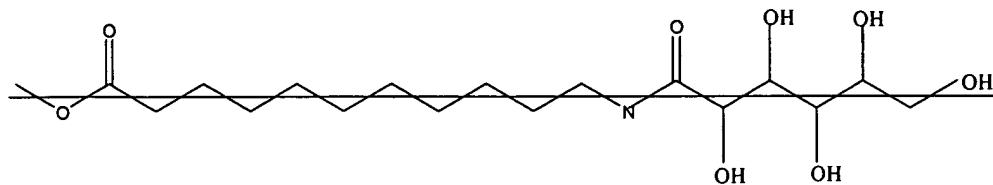


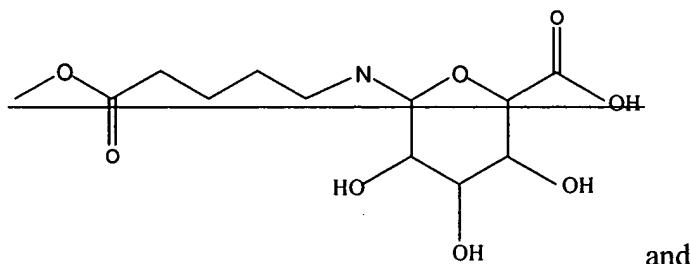
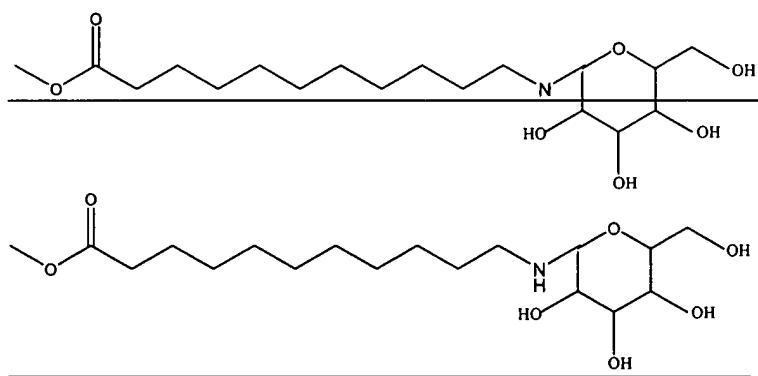
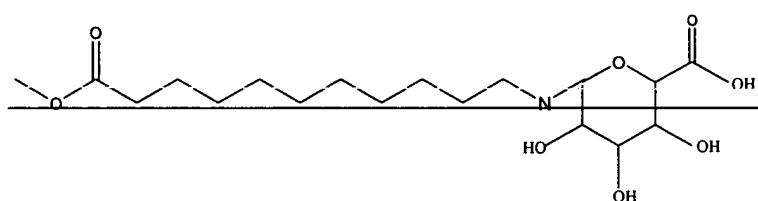
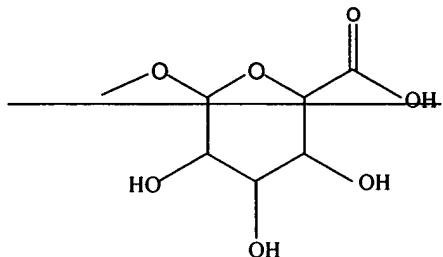




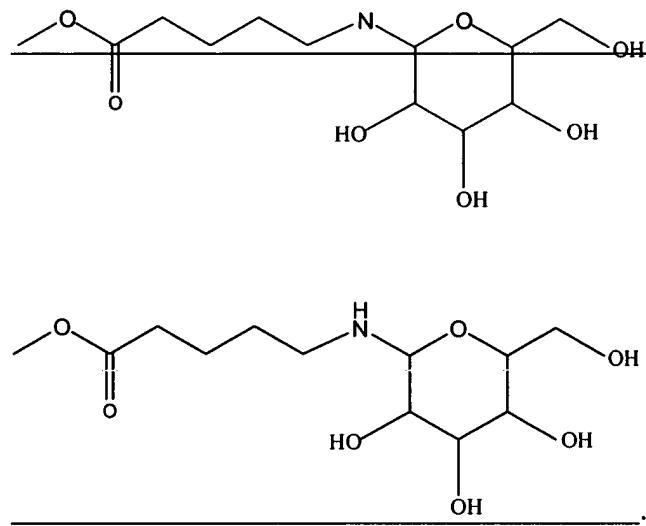








and



212. (original) A compound of claim 206 wherein:

i is 2;

R^{1C} and R^{1D} are independently selected from hydrogen and alkyl; and

R^{2G} and R^{2H} are independently selected from hydrogen and alkyl.

213. (original) A compound of claim 206 wherein:

i is 2;

R^{1C} and R^{1D} are hydrogen; and

R^{2G} and R^{2H} are independently selected from alkyl.

214. (original) A compound of claim 206 wherein:

i is 2;

R^{1C} and R^{1D} are hydrogen; and

R^{2G} and R^{2H} are independently selected from ethyl, propyl and butyl.

215. (original) A compound of claim 206 wherein i is 1 or 2.

216. (original) A compound of claim 206 wherein i is 2.

217. (original) A compound of claim 206 wherein R^{1C} and R^{1D} are hydrogen.

218. (original) A compound of claim 206 wherein R^{2G} and R^{2H} are independently selected from the group consisting of hydrogen and C₁₋₆alkyl.

219. (original) A compound of claim 206 wherein R^{2G} and R^{2H} are independently selected from the group consisting C₁₋₆alkyl.

220. (original) A compound of claim 206 wherein R^{2G} and R^{2H} are the same alkyl.

221. (original) A compound of claim 206 wherein R^{2G} and R^{2H} are each n-butyl.

222. (original) A compound of claim 206 wherein one of R^{2G} and R^{2H} is ethyl and the other of R^{2G} and R^{2H} is n-butyl.

223. (original) A compound of claim 206 wherein one or more R³⁴ are independently selected from methoxy and dimethylamino.

224. (original) A compound of claim 206 wherein

i is 1 or 2;

R^{1C} and R^{1D} are hydrogen;

R^{2G} and R^{2H} are n-butyl; and

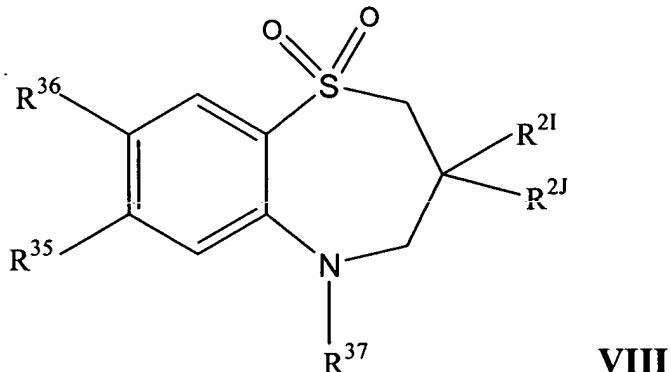
one or more R³⁴ are independently selected from methoxy and dimethylamino.

225. (original) A compound of claim 206 wherein

i is 1 or 2;

R^{1C} and R^{1D} are hydrogen;
one of R^{2G} and R^{2H} is ethyl and the other of R^{2G} and R^{2H} is n-butyl; and
one or more R^{34} are independently selected from methoxy and dimethylamino.

226. (Previously amended) A compound of Formula VIII:



wherein:

R^{2I} and R^{2J} are independently selected from C_{1-6} alkyl; and

R^{35} is selected from the group consisting of halogen and R^{38} ;

R^{36} is selected from the group consisting of hydroxy, alkoxy, and R^{38} ;

wherein R^{38} is selected from the group consisting of cycloalkyl, aryl and heterocyclyl,

wherein said cycloalkyl, aryl and heterocyclyl are substituted with $-N(H)-X-R^{39}$ or $-O-X-R^{39}$ and

wherein:

X is selected from the group consisting of:

- $-(C=O)_u\text{-alkyl-}$;
- $-(C=O)_u\text{-alkyl-NH-}$;
- $-(C=O)_u\text{-alkyl-O-}$;
- $-(C=O)_u\text{-alkyl-(C=O)}_v$; and
- a covalent bond; and

R^{39} is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides, wherein said monosaccharides, disaccharides, and polysaccharides may be protected with one or more sugar protecting groups; and

u and v are independently 0 or 1; and

R^{37} is unsubstituted phenyl or R^{38} ; or
a pharmaceutically acceptable salt or solvate thereof;
provided that at least one of R^{35} , R^{36} and R^{37} is R^{38} .

227. (original) A compound of Claim 226 wherein R^{38} is phenyl substituted with -
 $N(H)-X-R^{39}$ or $-O-X-R^{39}$ wherein:

X is selected from the group consisting of:

- $-(C=O)_u\text{-alkyl-}$;
- $-(C=O)_u\text{-alkyl-NH-}$;
- $-(C=O)_u\text{-alkyl-O-}$;
- $-(C=O)_u\text{-alkyl-(C=O)}_v$; and

a covalent bond; and

R^{39} is selected from selected from the group consisting of monosaccharides,
disaccharides, and polysaccharides; and
 u and v are independently 0 or 1.

228. (original) A compound of Claim 227 wherein R^{38} is phenyl substituted at the
para-position with $-N(H)-X-R^{39}$ or $-O-X-R^{39}$ wherein:

X is selected from the group consisting of:

- $-(C=O)_u\text{-alkyl-}$;
- $-(C=O)_u\text{-alkyl-NH-}$;
- $-(C=O)_u\text{-alkyl-O-}$;
- $-(C=O)_u\text{-alkyl-(C=O)}_v$; and

a covalent bond; and

R^{39} is selected from selected from the group consisting of monosaccharides,
disaccharides, and polysaccharides; and
 u and v are independently 0 or 1.

229. (original) A compound of Claim 227 wherein R³⁸ is phenyl substituted at the meta-position with -N(H)-X-R³⁹ or -O-X-R³⁹ wherein:

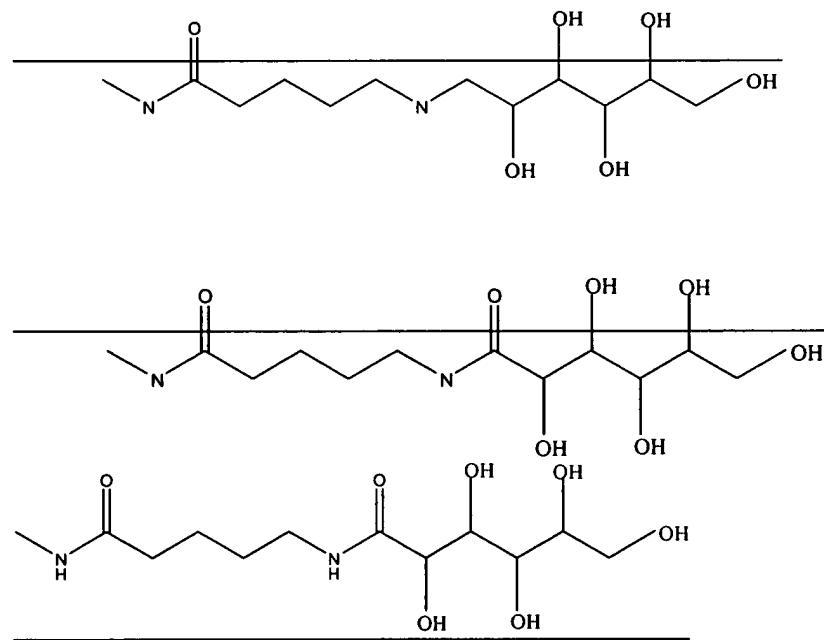
X is selected from the group consisting of:

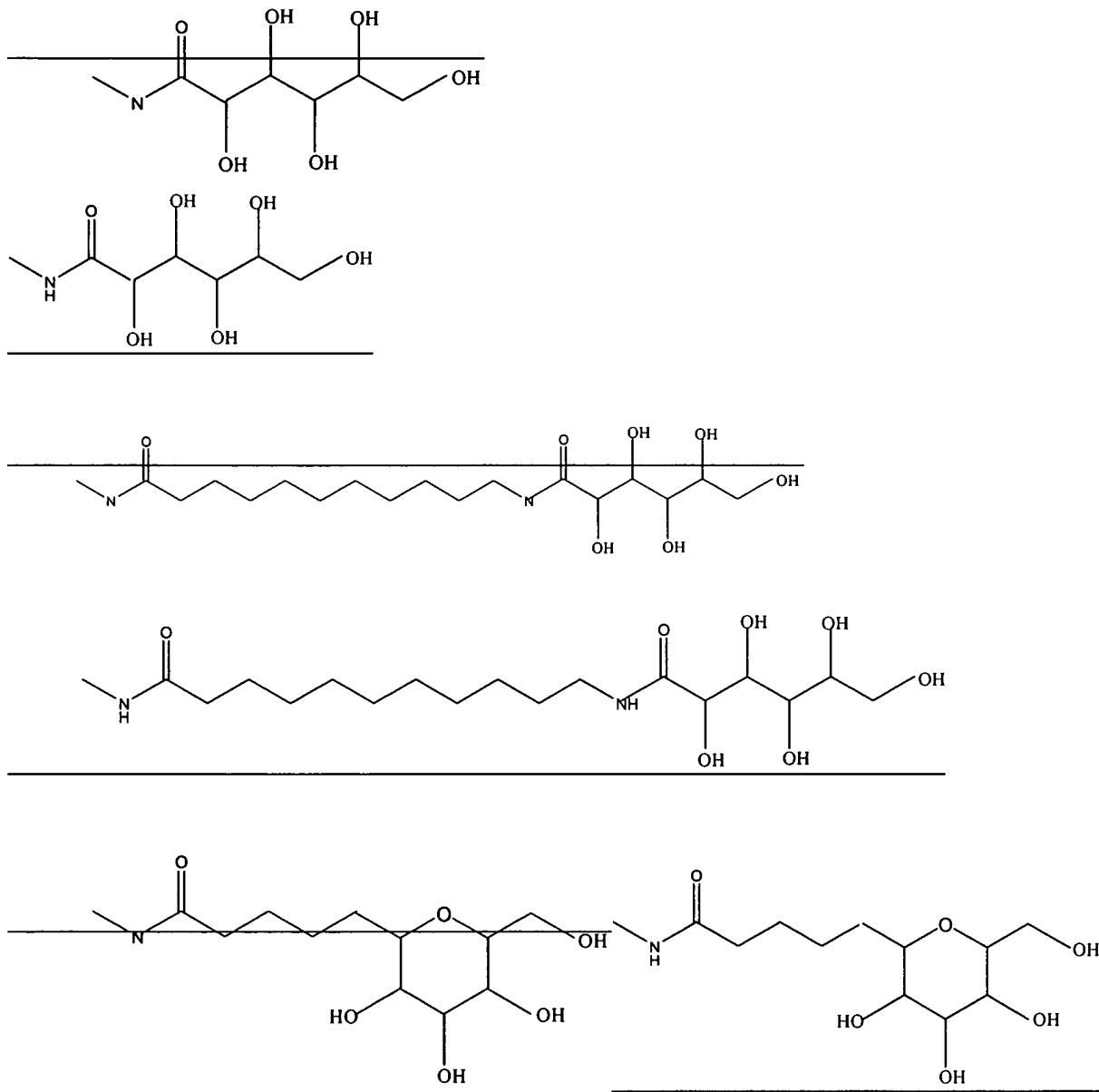
- (C=O)_u-alkyl-;
- (C=O)_u-alkyl-NH-;
- (C=O)_u-alkyl-O-;
- (C=O)_u-alkyl-(C=O)_v; and
- a covalent bond; and

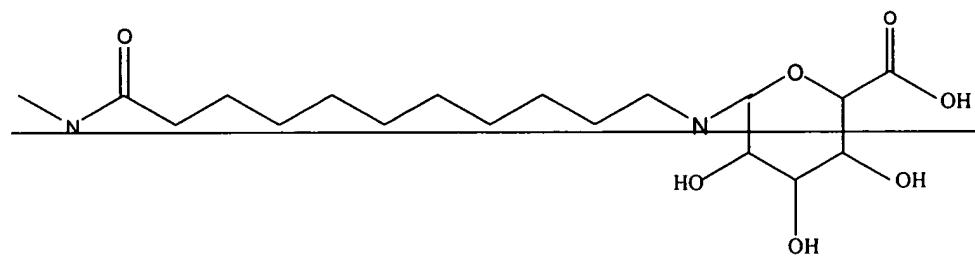
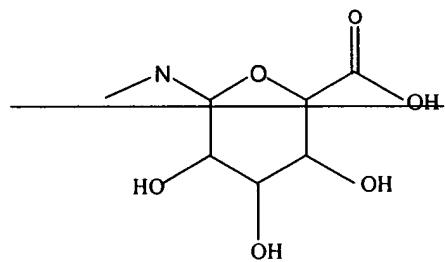
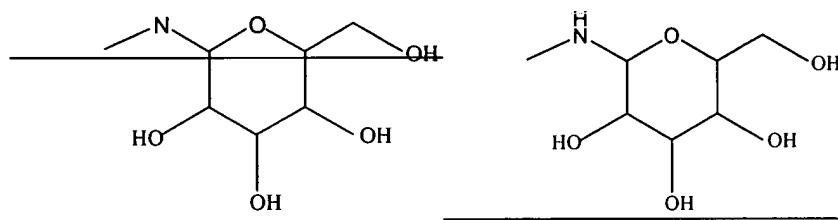
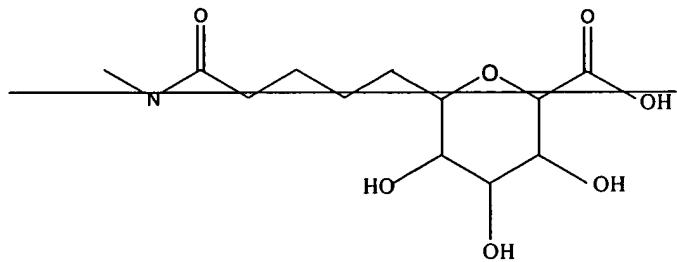
R³⁹ is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides; and

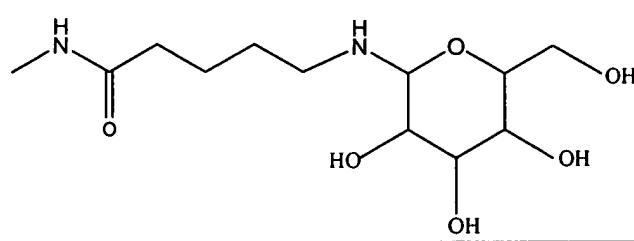
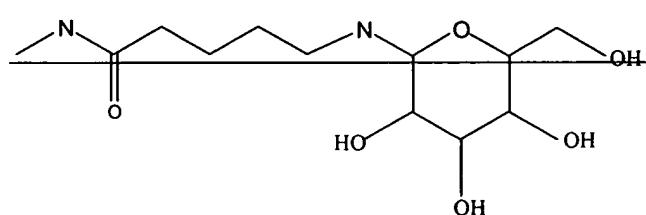
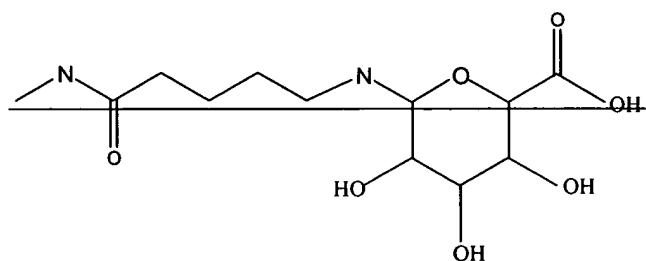
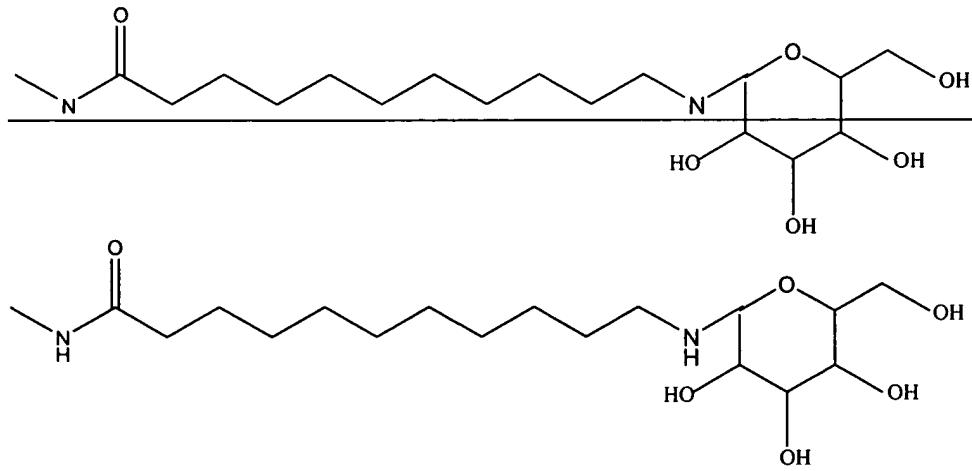
u and v are independently 0 or 1.

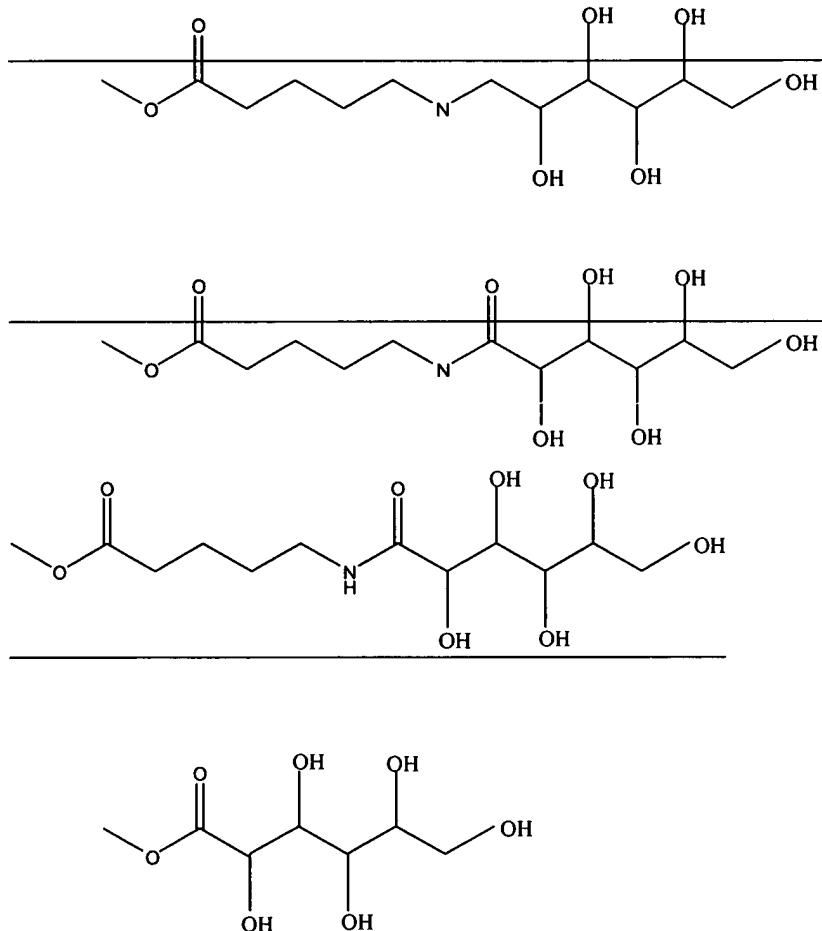
230. (Currently Amended) A compound of claim 227 wherein R³⁸ is phenyl substituted with a radical selected from the group consisting of:

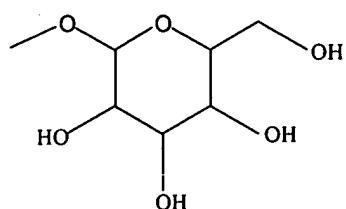
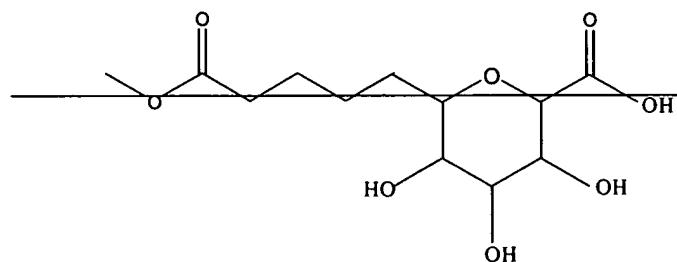
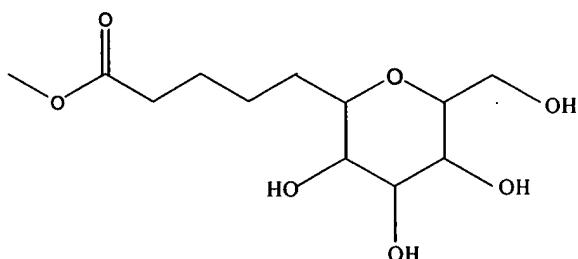
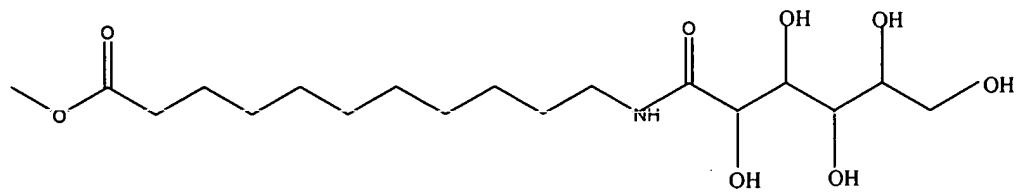
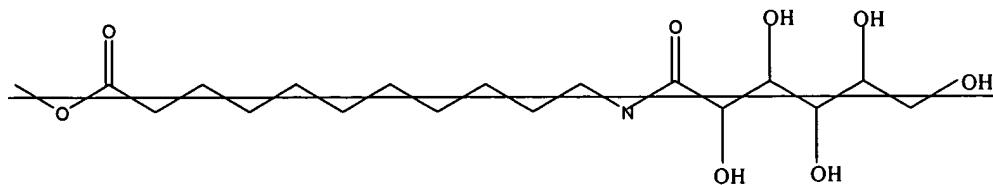


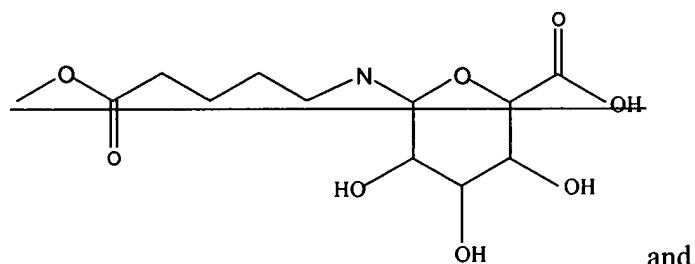
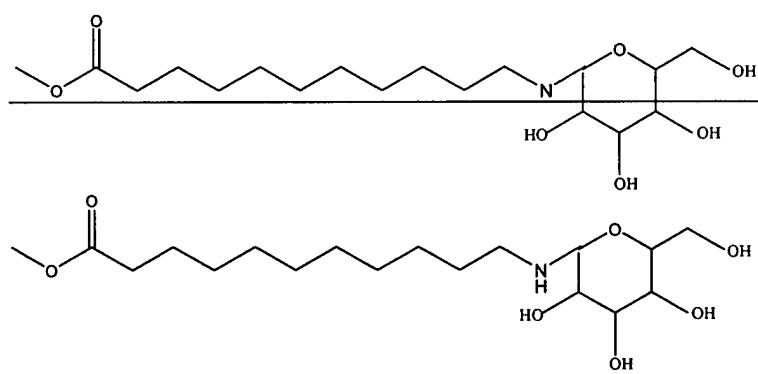
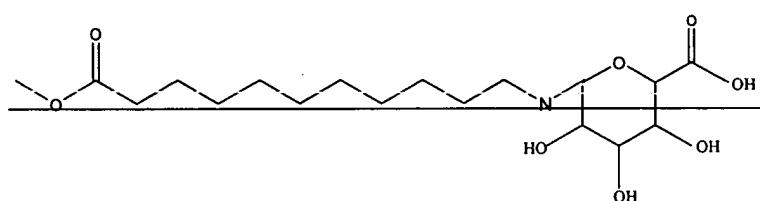
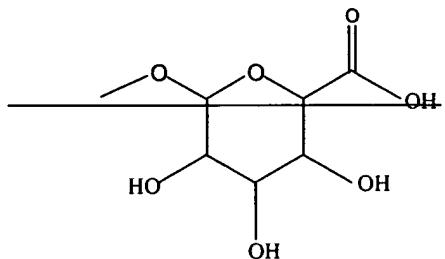


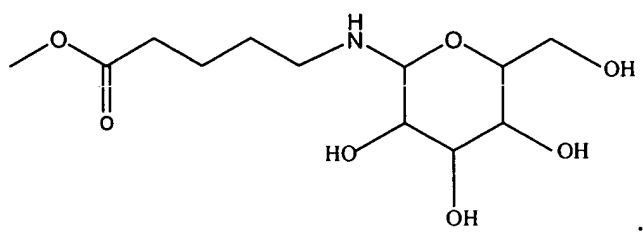
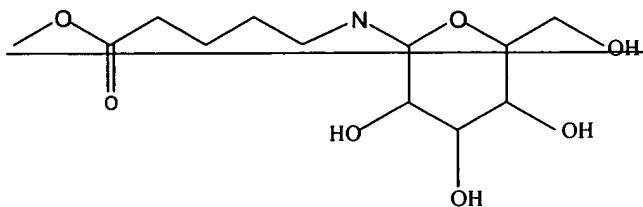












231. (original) A compound of claim 227 wherein:

R^{21} and R^{22} are independently selected from ethyl and n-butyl;

R^{35} is chloro; and

R^{36} is selected from the group consisting of hydroxy and methoxy.

232. (original) A compound of claim 227 wherein:

R^{21} and R^{22} are n-butyl;

R^{35} is chloro; and

R^{36} is selected from the group consisting of hydroxy and methoxy.

233. (original) A compound of claim 227 wherein:

one of R^{21} and R^{22} is ethyl and the other of R^{21} and R^{22} is n-butyl;

R^{35} is chloro; and

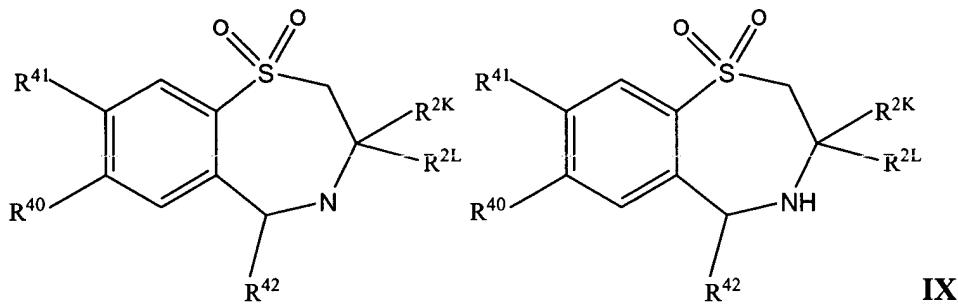
R^{36} is selected from the group consisting of hydroxy and methoxy.

234. (original) A compound of claim 227 wherein R^{21} and R^{22} are the same alkyl.

235. (original) A compound of claim 227 wherein R²¹ and R^{2J} are each n-butyl.

236. (original) A compound of claim 227 wherein one of R²¹ and R^{2J} is ethyl and the other of R²¹ and R^{2J} is n-butyl.

237. (Currently Amended) A compound of Formula IX:



wherein:

R^{2K} and R^{2L} are independently selected from C₁₋₆ alkyl; and

R⁴⁰ and R⁴¹ are independently selected from the group consisting of hydrogen, alkoxy, and R⁴³;

wherein R⁴³ is selected from the group consisting of cycloalkyl, aryl and heterocyclyl, wherein said cycloalkyl, aryl and heterocyclyl are substituted with -N(H)-X-R⁴⁴ or -O-X-R⁴⁴ and wherein:

X is selected from the group consisting of:

- (C=O)_a-alkyl-;
- (C=O)_a-alkyl-NH-;
- (C=O)_a-alkyl-O-;
- (C=O)_a-alkyl-(C=O)_b; and
- a covalent bond; and

R⁴⁴ is selected from the group consisting of monosaccharides, disaccharides, and polysaccharides, wherein said monosaccharides, disaccharides, and polysaccharides may be protected with one or more sugar protecting groups; and

a and b are independently 0 or 1; and

R^{42} is unsubstituted phenyl or R^{43} ; or
a pharmaceutically acceptable salt or solvate thereof;
provided that at least one of R^{40} , R^{41} and R^{42} is R^{43} .

238. (original) A compound of Claim 237 wherein R^{43} is phenyl substituted with -
 $N(H)-X-R^{44}$ or $-O-X-R^{44}$ wherein:

X is selected from the group consisting of:

- $-(C=O)_a$ -alkyl-;
- $-(C=O)_a$ -alkyl-NH-;
- $-(C=O)_a$ -alkyl-O-;
- $-(C=O)_a$ -alkyl-($C=O$) $_b$; and
- a covalent bond; and

R^{44} is selected from selected from the group consisting of monosaccharides,
disaccharides, and polysaccharides; and
 a and b are independently 0 or 1.

239. (original) A compound of Claim 238 wherein R^{43} is phenyl substituted at the
para-position with $-N(H)-X-R^{44}$ or $-O-X-R^{44}$ wherein:

X is selected from the group consisting of:

- $-(C=O)_a$ -alkyl-;
- $-(C=O)_a$ -alkyl-NH-;
- $-(C=O)_a$ -alkyl-O-;
- $-(C=O)_a$ -alkyl-($C=O$) $_b$; and
- a covalent bond; and

R^{44} is selected from selected from the group consisting of monosaccharides,
disaccharides, and polysaccharides; and
 a and b are independently 0 or 1.

240. (original) A compound of Claim 238 wherein R⁴³ is phenyl substituted at the meta-position with -N(H)-X-R⁴⁴ or -O-X-R⁴⁴ wherein:

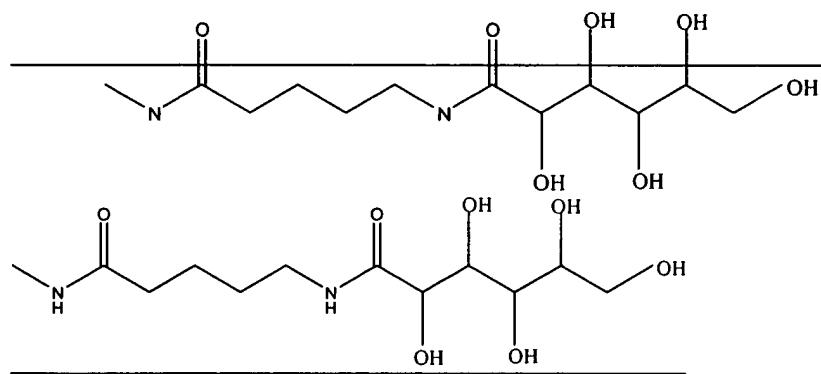
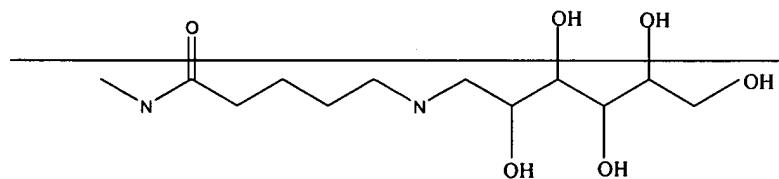
X is selected from the group consisting of:

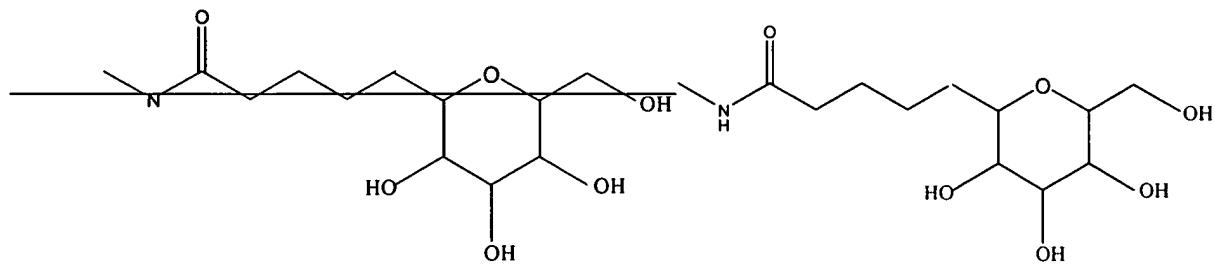
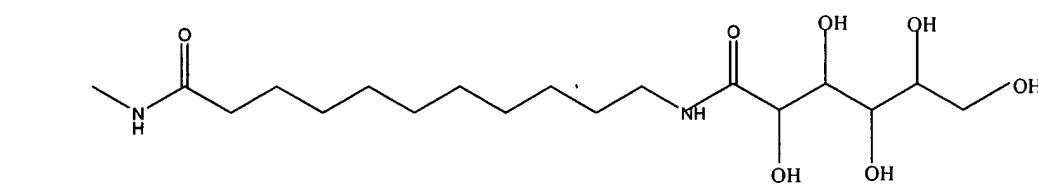
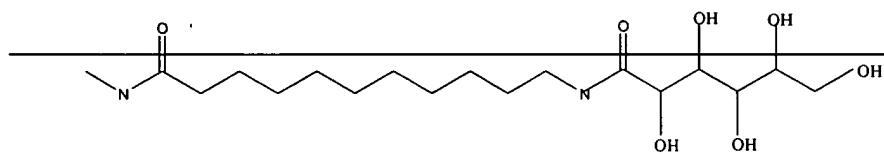
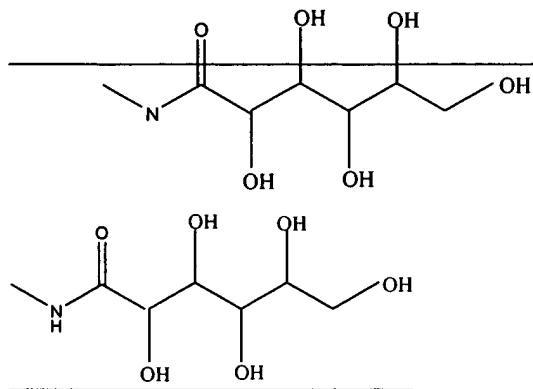
- (C=O)_a-alkyl-;
- (C=O)_a-alkyl-NH-;
- (C=O)_a-alkyl-O-;
- (C=O)_a-alkyl-(C=O)_b; and
- a covalent bond; and

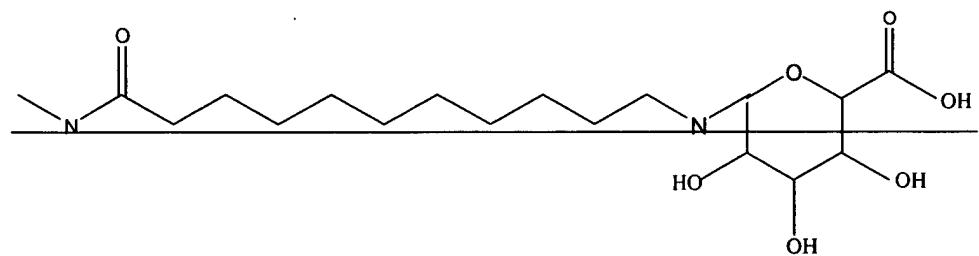
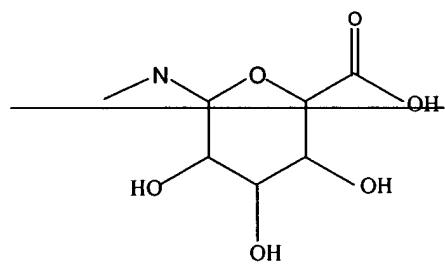
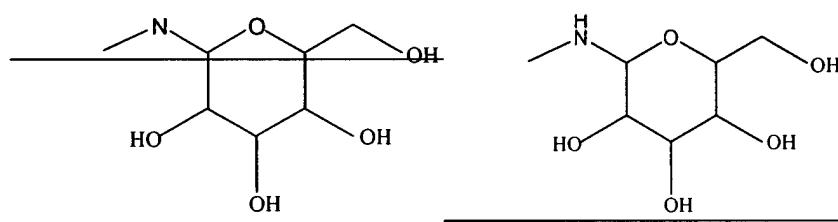
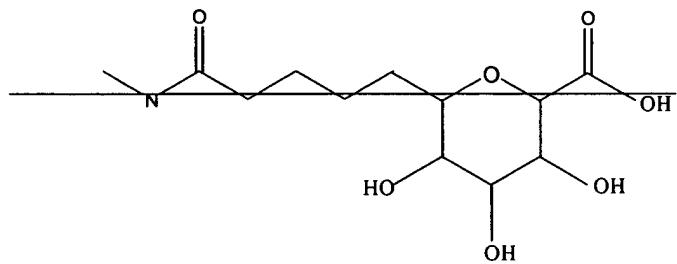
R⁴⁴ is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides; and

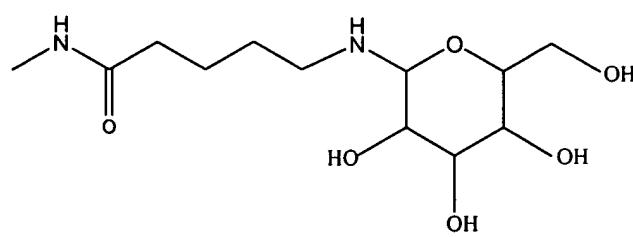
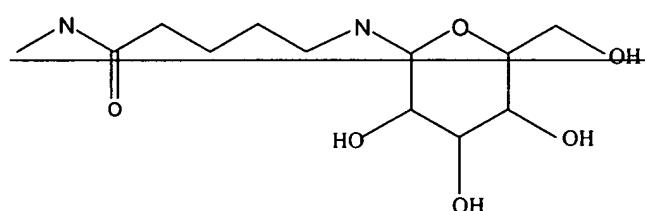
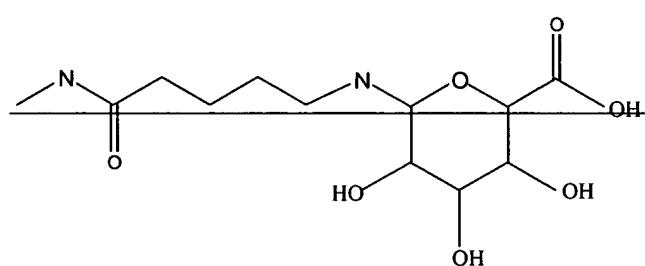
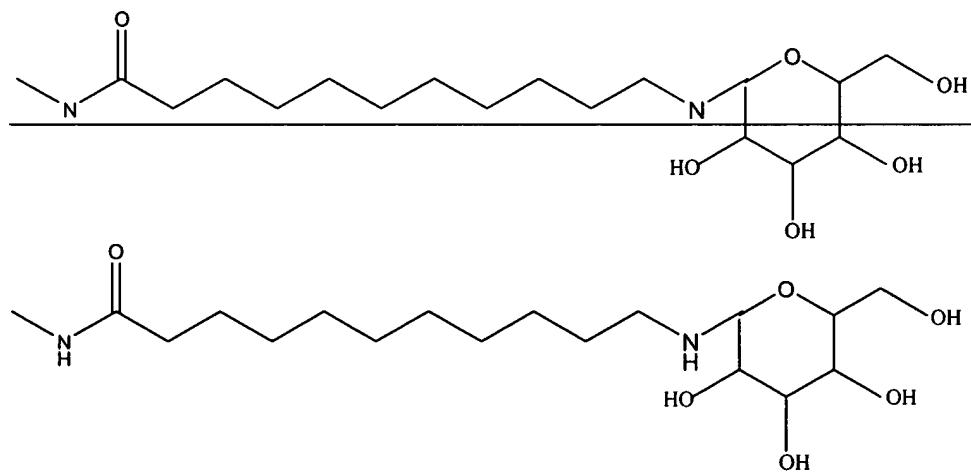
a and b are independently 0 or 1.

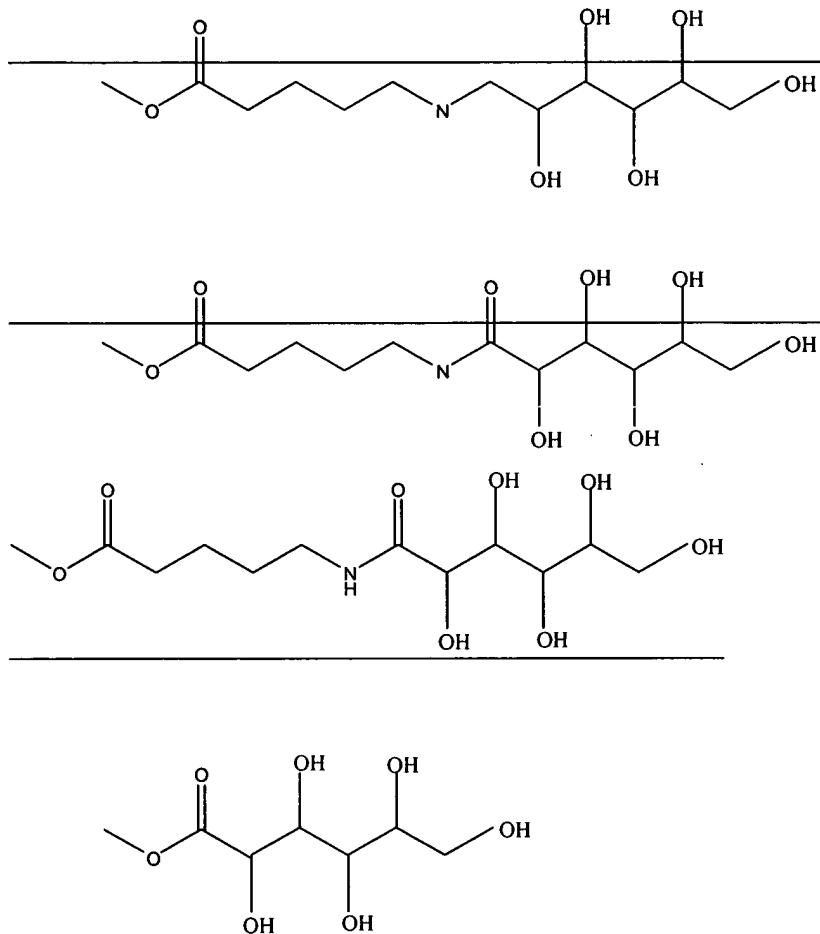
241. (Currently Amended) A compound of claim 238 wherein R⁴³ is phenyl substituted with a radical selected from the group consisting of:

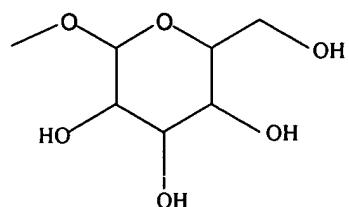
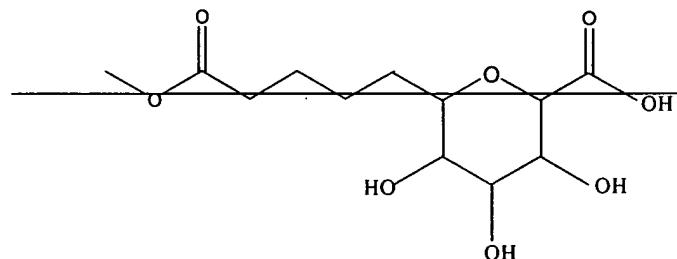
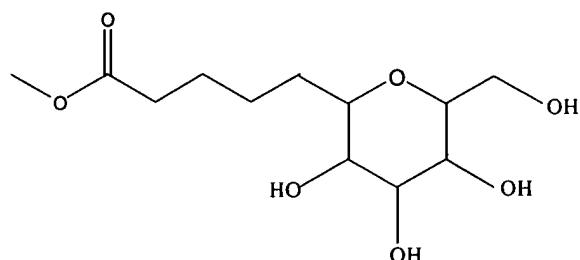
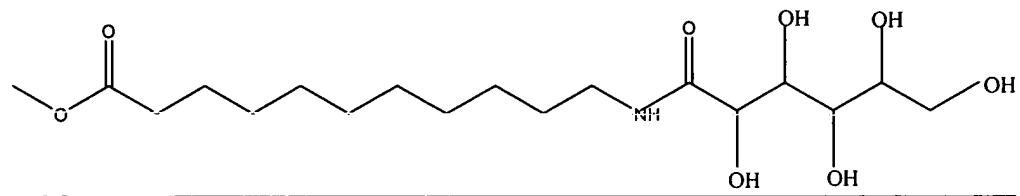
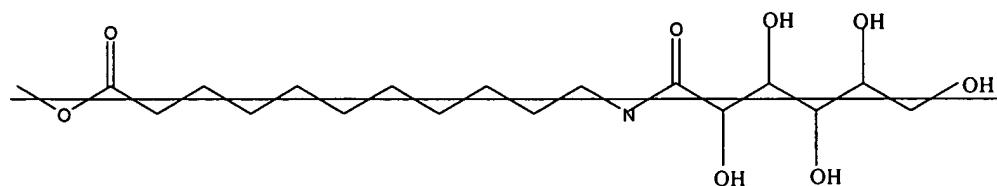


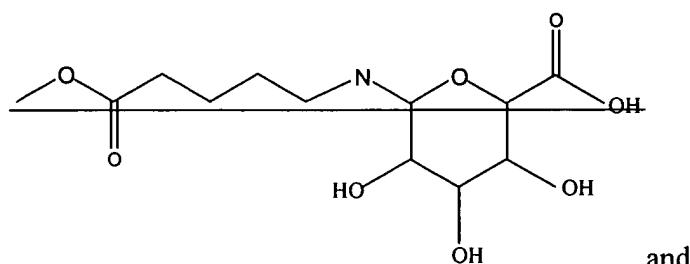
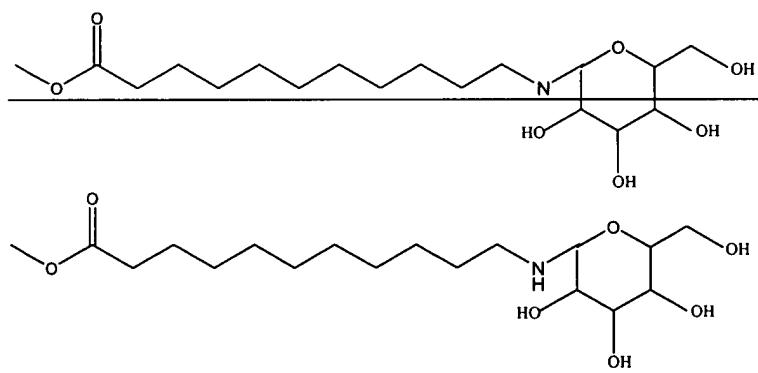
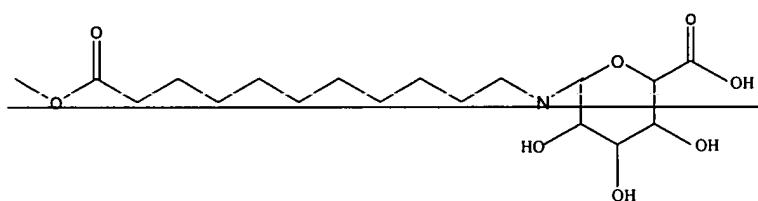
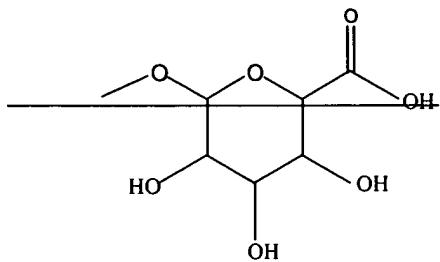


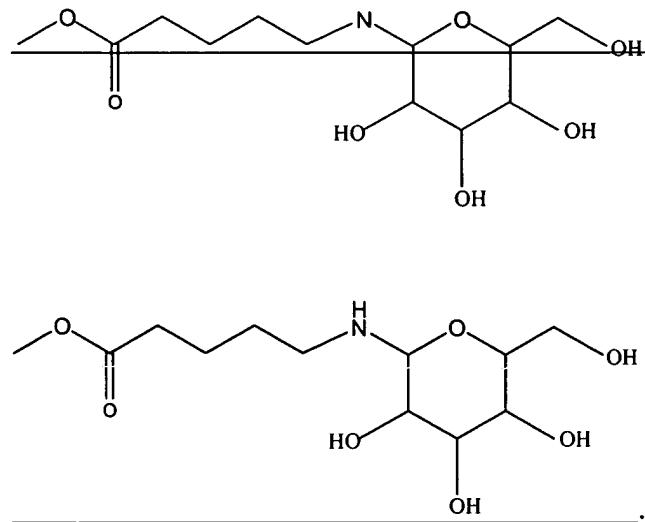












242. (original) A compound of claim 238 wherein:

R^{2K} and R^{2L} are independently selected from ethyl and n-butyl; and
 R^{40} and R^{41} are independently selected from hydrogen and methoxy.

243. (original) A compound of claim 238 wherein:

R^{2K} and R^{2L} are n-butyl; and
 R^{40} and R^{41} are independently selected from hydrogen and methoxy.

244. (original) A compound of claim 238 wherein:

one of R^{2K} and R^{2L} is ethyl and the other of R^{2K} and R^{2L} is n-butyl; and
 R^{40} and R^{41} are independently selected from hydrogen and methoxy.

245. (original) A compound of claim 238 wherein R^{2K} and R^{2L} are the same alkyl.

246. (original) A compound of claim 238 wherein R^{2K} and R^{2L} are each n-butyl.

247. (original) A compound of claim 238 wherein one of R^{2K} and R^{2L} is ethyl and the other of R^{2K} and R^{2L} is n-butyl.

248. (original) A compound of claim 238 wherein:
one of R^{2K} and R^{2L} is ethyl and the other of R^{2K} and R^{2L} is n-butyl; and
 R^{40} and R^{41} are hydrogen.

249. (original) A compound of claim 238 wherein:
one of R^{2K} and R^{2L} is ethyl and the other of R^{2K} and R^{2L} is n-butyl; and
 R^{40} and R^{41} are methoxy.

250. (Previously amended) A method of treating a hyperlipidemic condition in a subject comprising administering to the subject a therapeutically effective amount of a compound of Formula I according to any one of claims 1 to 120, or a pharmaceutically acceptable salt or solvate thereof.

251. (Previously amended) A method of treating a hyperlipidemic condition in a subject comprising administering to the subject a therapeutically effective amount of a compound of Formula III according to any one of claims 121 to 140, or a pharmaceutically acceptable salt or solvate thereof.

252. (Previously amended) A method of treating a hyperlipidemic condition in a subject comprising administering to the subject a therapeutically effective amount of a compound of Formula V according to any one of claims 141 to 162, or a pharmaceutically acceptable salt or solvate thereof.

253. (Currently Amended) A method of treating a hyperlipidemic condition in a subject comprising administering to the subject a therapeutically effective amount of a

compound of Formula VII according to any one of claims 163-167, 188, and 205 to 225, or a pharmaceutically acceptable salt or solvate thereof.

254. (Previously amended) A method of treating a hyperlipidemic condition in a subject comprising administering to the subject a therapeutically effective amount of a compound of Formula VIII according to any one of claims 226 to 236, or a pharmaceutically acceptable salt or solvate thereof.

255. (Currently Amended) A method of treating a hyperlipidemic condition in a subject comprising administering to the subject a therapeutically effective amount of a compound of Formula IX according to any one of claims 237 to 250 249, or a pharmaceutically acceptable salt or solvate thereof.

256. (Currently Amended) The method of claim 254 250 wherein the hyperlipidemic condition is atherosclerosis.

257. (Previously amended) A pharmaceutical composition comprising a compound of Formula I according to any one of claims 1 to 120 or a pharmaceutically acceptable salt or solvate thereof, and a pharmaceutically acceptable carrier.

258. (Previously amended) A pharmaceutical composition comprising a compound of Formula III according to any one of claims 121 to 140 or a pharmaceutically acceptable salt or solvate thereof, and a pharmaceutically acceptable carrier.

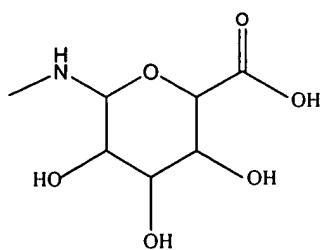
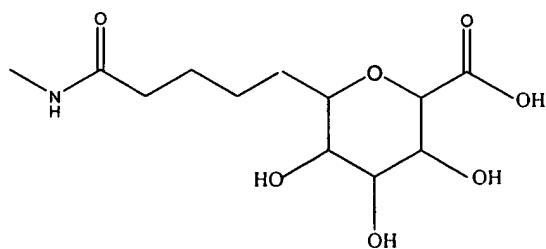
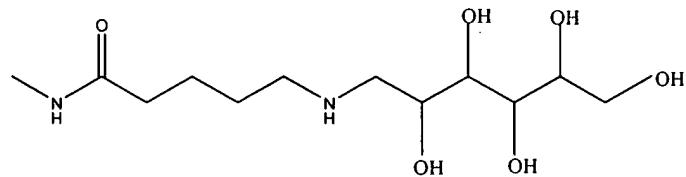
259. (Previously amended) A pharmaceutical composition comprising a compound of Formula V according to any one of claims 141 to 162 or a pharmaceutically acceptable salt or solvate thereof, and a pharmaceutically acceptable carrier.

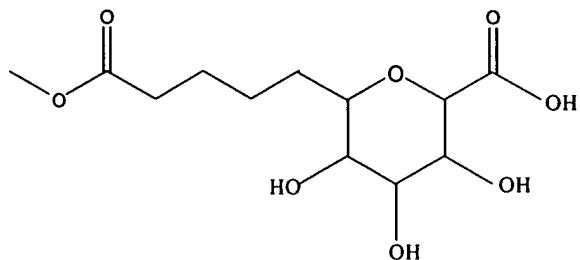
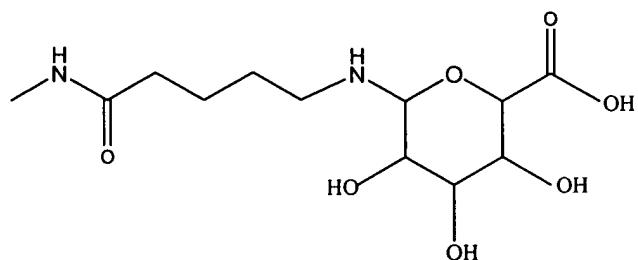
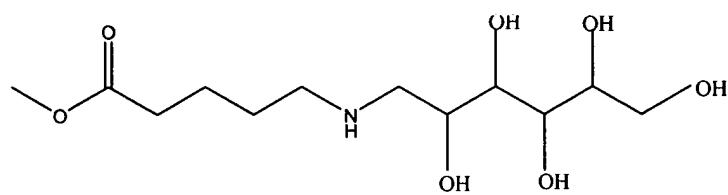
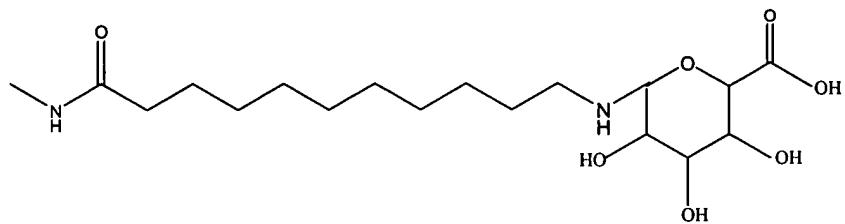
260. (Previously amended) A pharmaceutical composition comprising a compound of Formula VII according to any one of claims 163-167, 188, and 205 to 225 or a pharmaceutically acceptable salt or solvate thereof, and a pharmaceutically acceptable carrier.

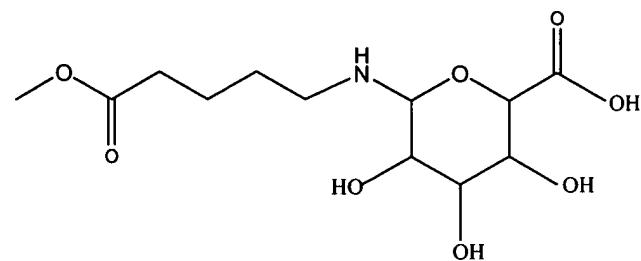
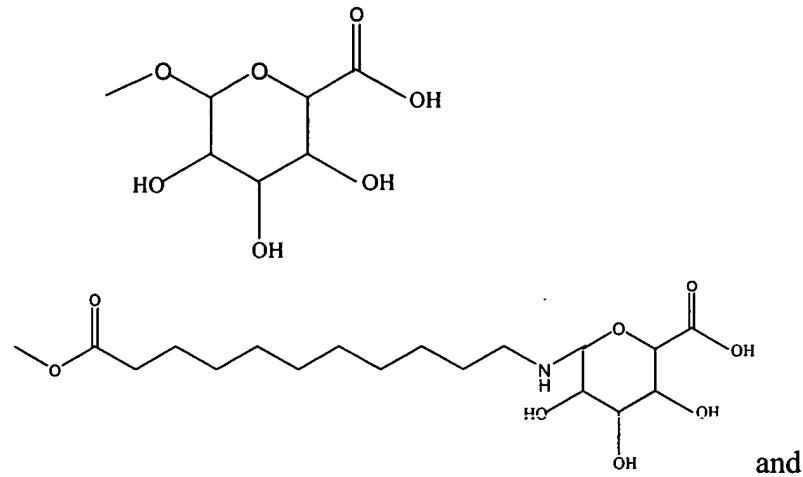
261. (Previously amended) A pharmaceutical composition comprising a compound of Formula VIII according to any one of claims 226 to 236 or a pharmaceutically acceptable salt or solvate thereof, and a pharmaceutically acceptable carrier.

262. (Currently Amended) A pharmaceutical composition comprising a compound of Formula IX according to any one of claims 237 to 250 249 or a pharmaceutically acceptable salt or solvate thereof, and a pharmaceutically acceptable carrier.

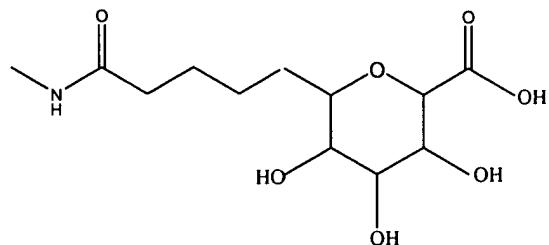
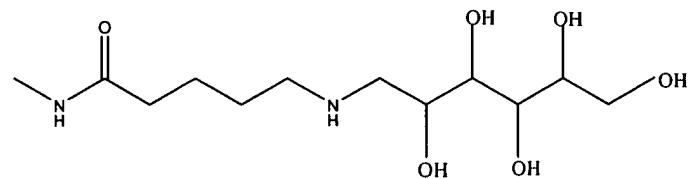
263. (New) A compound of claim 205 wherein at least one of R³⁰, R³¹, and R³⁴ is phenyl substituted with a radical selected from the group consisting of:

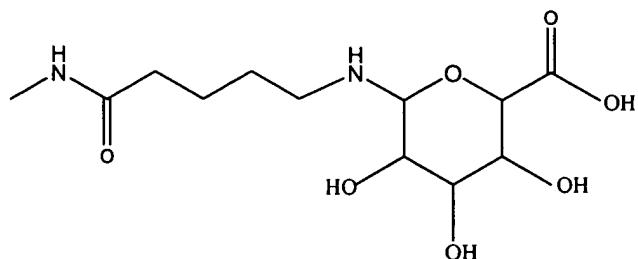
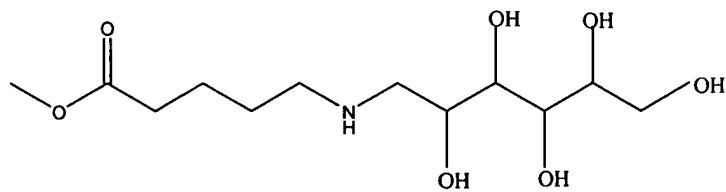
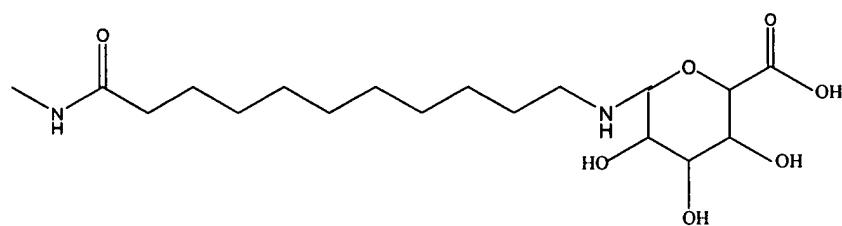
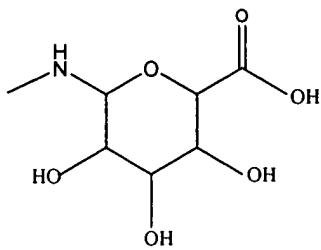


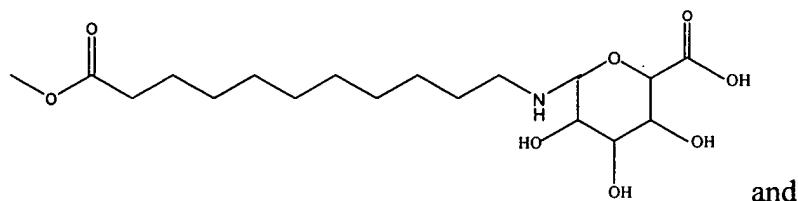
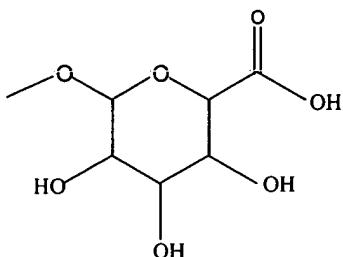
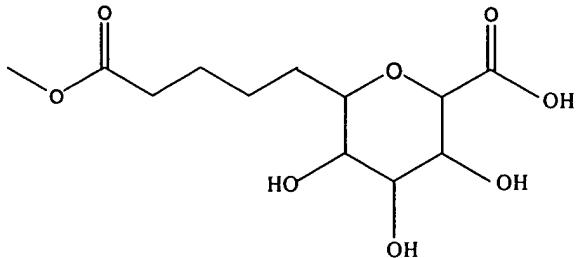




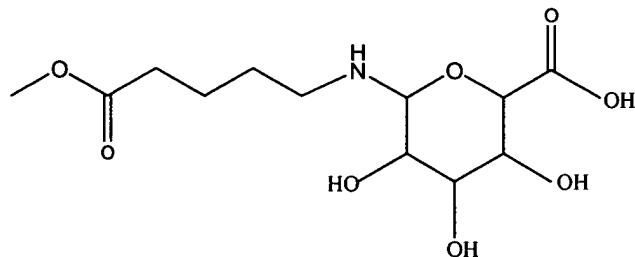
264. (New) A compound of claim 226 wherein at least one of R^{30} , R^{31} , and R^{34} is phenyl substituted with a radical selected from the group consisting of:



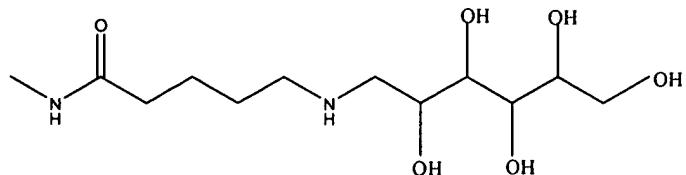


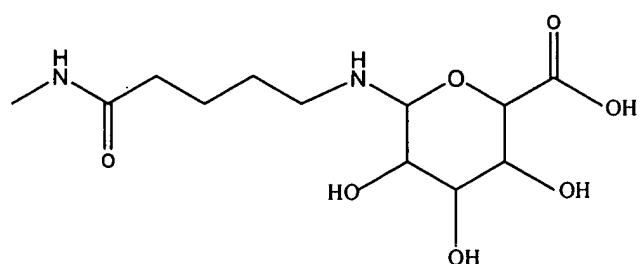
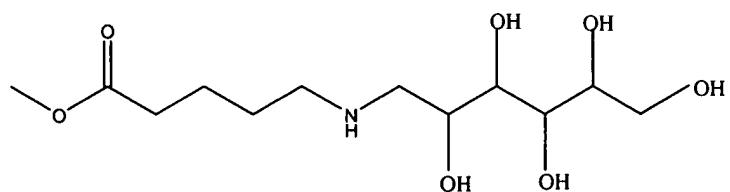
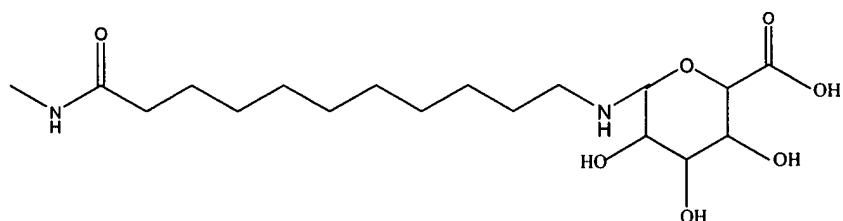
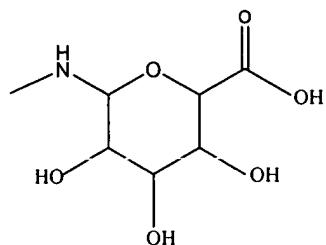
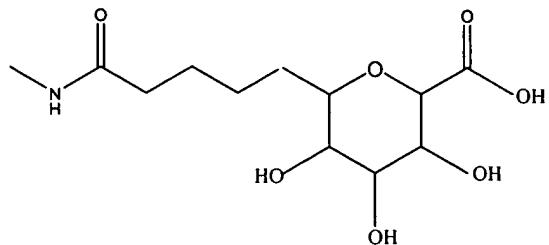


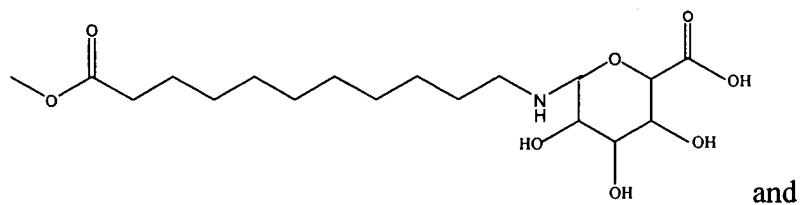
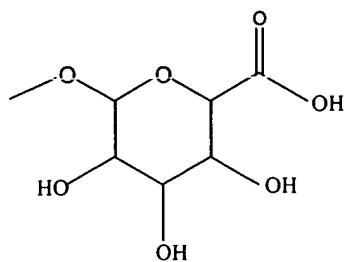
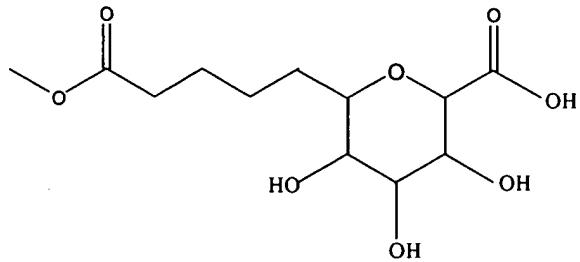
and



265. (New) A compound of claim 237 wherein at least one of R³⁰, R³¹, and R³⁴ is phenyl substituted with a radical selected from the group consisting of:







and

